

# DESC APPROVED LOW DROPOUT NEGATIVE



Three Terminal, Fixed Voltage,  
Low Dropout Negative Voltage Regulator  
In Hermetic Packages

## FEATURES

- Approved To DESC Standardized Military Drawings
- Low Dropout Voltage, 0.6 V @  $I_o = 1\text{ A}$
- Output Current in Excess of 1 A [LCC 20 (N2) package limited to 0.3A]
- Reverse Battery Protection
- Internal Short Circuit Protection
- Isolated and Non-Isolated Hermetic Package Types
- Output Voltages: - 5V, -5.2V, -12V, & -15V

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## DESCRIPTION

The OM2990 series of fixed voltage regulators are designed to provide up to 1.5A with high efficiency. It has the ability to source 1A of output current with a typical dropout voltage of 0.6V and a maximum of 1V over the entire operating temperature range. It is supplied in hermetic packages and is ideally suited for all applications where small size and high reliability are required.

## ABSOLUTE MAXIMUM RATINGS, $T_c = 25^\circ\text{C}$

Input Voltage . . . . .	-26 V to +0.3V
Output Voltage . . . . .	-5V, -5.2 V, -12 V, -15 V dc
Operating Junction Temperature Range . . . . .	- 55°C to + 125°C
Storage Temperature Range . . . . .	- 65°C to + 150°C
Lead Temperature (Soldering 10 seconds) . . . . .	300°C
Thermal Resistance: Junction to Case	
Case 2, LCC20 . . . . .	15.5°C/W
Case U&M, TO-257 (isolated) & SMD-3 . . . . .	3.8°C/W
Case T&N, TO-257 (non-isolated) & SMD-1 . . . . .	3.0°C/W
Case Y, TO-3 . . . . .	2.7°C/W
Maximum Output Current	
Case 2 . . . . .	0.3A
Case U&M . . . . .	1.2A
Case T, N & Y . . . . .	1.5A

APPROVED DESC DRAWING	OMNIREL P/N
5962-9571101MUA	OM2990 - 5 STM
5962-9571002MUA	OM2990 - 5.2 STM
5962-9571001MUA	OM2990 - 12 STM

**ELECTRICAL CHARACTERISTICS, OM2990-5NK, NM, NT (-5 VOLTS)**

Test Conditions are -55°C, T<sub>a</sub> 125°C, V<sub>IN</sub> = -10V, C<sub>OUT</sub> = 47 μF (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	V <sub>OUT</sub>	5 mA ≤ I <sub>O</sub> ≤ 1.0 A	1	-5.10	-4.90	V
			2	-5.25	-4.75	
Quiescent Current	I <sub>Q</sub>	I <sub>O</sub> ≤ 1.0A	1		5	mA
			2		12	
			1,2	I <sub>I</sub> = 1.0A, V <sub>IN</sub> = -5 V	50	
Line Regulation	V <sub>RLN</sub>	-6 V V <sub>IN</sub> -26 V, I <sub>OUT</sub> = 5 mA	1		±40	mV
			2		±50	
Load Regulation	V <sub>RLD</sub>	50 mA I <sub>OUT</sub> 1.0 A	1		±50	mV
			2		±100	
Dropout Voltage	V <sub>DO</sub>	I <sub>O</sub> = 0.1 A DV <sub>O</sub> 100 mV	1		3	V
			2			
			1	I <sub>O</sub> = 1.0 A	1	
			2	DV <sub>O</sub> 100 mV		
Output Noise Voltage	V <sub>ON</sub>	I <sub>O</sub> = 5 mA, 10 Hz - 100 kHz	3		750	μV
Short Circuit Current	I <sub>SC</sub>	R <sub>L</sub> = 1	1	1.5		A
			2	1.3		
Maximum Output Current	I <sub>MAX</sub>		1	1.5		A
Ripple Rejection	R <sub>R</sub>	V <sub>ripple</sub> = 1 V <sub>rms</sub> I <sub>OUT</sub> = 5 mA, f = 1 kHz	1	50		dB

Notes: 1. T<sub>a</sub> = 25°C.  
2. Over full operating temperature range.  
3. Guaranteed, not tested.

**ELECTRICAL CHARACTERISTICS, OM2990-12NK, NM, NT (-12 VOLTS)**

Test Conditions are -55°C, T<sub>a</sub> 125°C, V<sub>IN</sub> = -17V, C<sub>OUT</sub> = 47 μF (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	V <sub>OUT</sub>	5 mA ≤ I <sub>O</sub> ≤ 1.0A	1	-12.24	-11.76	V
			2	-12.60	-11.40	
Quiescent Current	I <sub>Q</sub>	I <sub>O</sub> ≤ 1.0A	1		5	mA
			2		12	
			1,2	I <sub>I</sub> = 1A, V <sub>IN</sub> = -12 V	50	
Line Regulation	V <sub>RLN</sub>	-13 V V <sub>IN</sub> -26 V, I <sub>OUT</sub> = 5 mA	1		±65	mV
			2		±80	
Load Regulation	V <sub>RLD</sub>	50 mA I <sub>OUT</sub> 1.0 A	1		±80	mV
			2		±120	
Dropout Voltage	V <sub>DO</sub>	I <sub>O</sub> = 0.1 A DV <sub>O</sub> 100 mV	1		3	V
			2			
			1	I <sub>O</sub> = 1 A	1	
			2	DV <sub>O</sub> 100 mV		
Output Noise Voltage	V <sub>ON</sub>	I <sub>O</sub> = 5 mA, 10 Hz - 100 kHz	3		1500	μV
Short Circuit Current	I <sub>SC</sub>	R <sub>L</sub> = 1	1	.90		A
			2	.75		
Maximum Output Current	I <sub>MAX</sub>		1	1.4		A
Ripple Rejection	R <sub>R</sub>	V <sub>ripple</sub> = 1 V <sub>rms</sub> I <sub>OUT</sub> = 5 mA, f = 1 kHz	1	42		dB

Notes: 1. T<sub>a</sub> = 25°C.  
2. Over full operating temperature range.  
3. Guaranteed, not tested.  
4. The short circuit current is less than the maximum output current due to internal foldback current limiting. The -5V and -5.2V versions do not reach the foldback current limit and therefore conducts a higher short

**ELECTRICAL CHARACTERISTICS, OM2990-15NK, NM, NT (-15 VOLTS)**

Test Conditions are -55°C, T<sub>a</sub> 125°C, V<sub>IN</sub> = -20V, C<sub>OUT</sub> = 47 μF (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	V <sub>OUT</sub>	5 mA ≤ I <sub>O</sub> ≤ 1.0 A	1	-15.30	-14.70	V
			2	-15.75	-14.25	
Quiescent Current	I <sub>Q</sub>	I <sub>O</sub> ≤ 1.0A	1		15	mA
			2		20	
			1,2	I <sub>I</sub> = 1.0A, V <sub>IN</sub> = -15 V	50	
Line Regulation	V <sub>RLN</sub>	-16 V V <sub>IN</sub> -26 V, I <sub>OUT</sub> = 5 mA	1		±75	mV
			2		±120	
Load Regulation	V <sub>RLD</sub>	50 mA I <sub>OUT</sub> 1.0 A	1		±120	mV
			2		±190	
Dropout Voltage	V <sub>DO</sub>	I <sub>O</sub> = 0.1 A DV <sub>O</sub> 100 mV	1		3	V
			2			
			1	I <sub>O</sub> = 1.0 A	1	
			2	DV <sub>O</sub> 100 mV		
Output Noise Voltage	V <sub>ON</sub>	I <sub>O</sub> = 5 mA, 10 Hz - 100 kHz	3		1800	μV
Short Circuit Current	I <sub>SC</sub>	R <sub>L</sub> = 1	1	.75		A
			2	.62		
Maximum Output Current	I <sub>MAX</sub>		1	1.4		A
Ripple Rejection	R <sub>R</sub>	V <sub>ripple</sub> = 1 V <sub>rms</sub> I <sub>OUT</sub> = 5 mA, f = 1 kHz	1	42		dB

Notes: 1. T<sub>a</sub> = 25°C.  
2. Over full operating temperature range.  
3. Guaranteed, not tested.  
4. The short circuit current is less than the maximum output current due to internal foldback current limiting. The -5V and -5.2V versions do not reach the foldback current limit and therefore conducts a higher short circuit level.

ELECTRICAL CHARACTERISTICS, OM2990-5SM, ST (-5 VOLTS)

Test Conditions are -55°C, T<sub>a</sub> 125°C, V<sub>IN</sub> = -10V, C<sub>OUT</sub> = 47 μF (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	V <sub>OUT</sub>	5 mA ≤ I <sub>O</sub> ≤ 1.0 A	1 2	-5.10 -5.25	-4.90 -4.75	V
Quiescent Current	I <sub>Q</sub>	I <sub>O</sub> ≤ 1.0A	1 2		5 12	mA
		I <sub>I</sub> = 1.0A, V <sub>IN</sub> = -5 V	1,2		50	
Line Regulation	V <sub>RLN</sub>	-6 V V <sub>IN</sub> -26 V, I <sub>OUT</sub> = 5 mA	1 2		±45 ±55	mV
Load Regulation	V <sub>RLD</sub>	50 mA I <sub>OUT</sub> 1.0 A	1 2		±70 ±110	mV
Dropout Voltage	V <sub>DO</sub>	I <sub>O</sub> = 0.1 A	1		3	V
		DV <sub>O</sub> 100 mV	2			
		I <sub>O</sub> = 1.0 A	1		1	
		DV <sub>O</sub> 100 mV	2			
Output Noise Voltage	V <sub>ON</sub>	I <sub>O</sub> = 5 mA, 10 Hz - 100 kHz	3		750	μV
Short Circuit Current	I <sub>SC</sub>	R <sub>L</sub> = 1	1,2	1.27		A
Maximum Output Current	I <sub>MAX</sub>		1	1.27		A
Ripple Rejection	R <sub>R</sub>	V <sub>ripple</sub> = 1 V <sub>rms</sub> I <sub>OUT</sub> = 5 mA, f = 1 kHz	1	50		dB
Notes: 1. T <sub>a</sub> = 25°C. 2. Over full operating temperature range. 3. Guaranteed, not tested.						

ELECTRICAL CHARACTERISTICS, OM2990-12SM, ST (-12 VOLTS)

Test Conditions are -55°C, T<sub>a</sub> 125°C, V<sub>IN</sub> = -17V, C<sub>OUT</sub> = 47 μF (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	V <sub>OUT</sub>	5 mA ≤ I <sub>O</sub> ≤ 1.0A	1 2	-12.24 -12.60	-11.76 -11.40	V
Quiescent Current	I <sub>Q</sub>	I <sub>O</sub> ≤ 1.0A	1 2		5 12	mA
		I <sub>I</sub> = 1A, V <sub>IN</sub> = -12 V	1,2		50	
Line Regulation	V <sub>RLN</sub>	-13 V V <sub>IN</sub> -26 V, I <sub>OUT</sub> = 5 mA	1 2		±65 ±80	mV
Load Regulation	V <sub>RLD</sub>	50 mA I <sub>OUT</sub> 1.0 A	1 2		±80 ±120	mV
Dropout Voltage	V <sub>DO</sub>	I <sub>O</sub> = 0.1 A	1		3	V
		DV <sub>O</sub> 100 mV	2			
		I <sub>O</sub> = 1 A	1		1	
		DV <sub>O</sub> 100 mV	2			
Output Noise Voltage	V <sub>ON</sub>	I <sub>O</sub> = 5 mA, 10 Hz - 100 kHz	3		1500	μV
Short Circuit Current	I <sub>SC</sub>	R <sub>L</sub> = 1	1,2	.75		A
Maximum Output Current	I <sub>MAX</sub>		1 4	1.18		A
Ripple Rejection	R <sub>R</sub>	V <sub>ripple</sub> = 1 V <sub>rms</sub> I <sub>OUT</sub> = 5 mA, f = 1 kHz	1	42		dB
Notes: 1. T <sub>a</sub> = 25°C. 2. Over full operating temperature range. 3. Guaranteed, not tested. 4. The short circuit current is less than the maximum output current due to internal foldback current limiting. The -5V and -5.2V versions do not reach the foldback current limit and therefore conducts a higher short circuit level.						

ELECTRICAL CHARACTERISTICS, OM2990-15SM, ST (-15 VOLTS)

Test Conditions are -55°C, T<sub>a</sub> 125°C, V<sub>IN</sub> = -20V, C<sub>OUT</sub> = 47 μF (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	V <sub>OUT</sub>	5 mA ≤ I <sub>O</sub> ≤ 1.0 A	1 2	-15.30 -15.75	-14.70 -14.25	V
Quiescent Current	I <sub>Q</sub>	I <sub>O</sub> ≤ 1.0A	1 2		15 20	mA
		I <sub>I</sub> = 1.0A, V <sub>IN</sub> = -15 V	1,2		50	
Line Regulation	V <sub>RLN</sub>	-16 V V <sub>IN</sub> -26 V, I <sub>OUT</sub> = 5 mA	1 2		±75 ±120	mV
Load Regulation	V <sub>RLD</sub>	50 mA I <sub>OUT</sub> 1.0 A	1 2		±120 ±190	mV
Dropout Voltage	V <sub>DO</sub>	I <sub>O</sub> = 0.1 A	1		3	V
		DV <sub>O</sub> 100 mV	2			
		I <sub>O</sub> = 1.0 A	1		1	
		DV <sub>O</sub> 100 mV	2			
Output Noise Voltage	V <sub>ON</sub>	I <sub>O</sub> = 5 mA, 10 Hz - 100 kHz	3		1800	μV
Short Circuit Current	I <sub>SC</sub>	R <sub>L</sub> = 1	1 2	.60 .50		A
Maximum Output Current	I <sub>MAX</sub>		1 4	1.4		A
Ripple Rejection	R <sub>R</sub>	V <sub>ripple</sub> = 1 V <sub>rms</sub> I <sub>OUT</sub> = 5 mA, f = 1 kHz	1	42		dB
Notes: 1. T <sub>a</sub> = 25°C. 2. Over full operating temperature range. 3. Guaranteed, not tested. 4. The short circuit current is less than the maximum output current due to internal foldback current limiting. The -5V and -5.2V versions do not reach the foldback current limit and therefore conducts a higher short circuit level.						

ELECTRICAL CHARACTERISTICS, OM2990-5N2 (-5 VOLTS)

Test Conditions are -55°C  $T_A$ , 125°C,  $V_{IN} = -10V$ ,  $C_{OUT} = 47 \mu F$  (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	$V_{OUT}$	$5 \text{ mA} \leq I_L \leq 300 \text{ mA}$	1	-5.10	-4.90	V
			2	-5.25	-4.75	
Quiescent Current	$I_Q$	$I_L \leq 300 \text{ mA}$	1		7	m A
			2		14	
Line Regulation	$V_{RLN}$	$I_L = 300 \text{ mA}$ , $V_{IN} = -5 \text{ V}$ $-6 \text{ V} \leq V_{IN} \leq -26 \text{ V}$ , $I_{OUT} = 5 \text{ mA}$	1,2		55	m V
			1		$\pm 45$	
Load Regulation	$V_{RLD}$	$50 \text{ mA} \leq I_{OUT} \leq 300 \text{ mA}$	2		$\pm 60$	m V
			1		$\pm 80$	
Dropout Voltage	$V_{DO}$	$I_L = 100 \text{ mA}$ $DV_{IN} = 100 \text{ mV}$	1		3	V
			2			
Dropout Voltage	$V_{DO}$	$I_L = 300 \text{ mA}$ $DV_{IN} = 100 \text{ mV}$	1		1	
			2			
Output Noise Voltage	$V_{ON}$	$I_L = 5 \text{ mA}$ , 10 Hz - 100 kHz	3		800	$\mu V$
Short Circuit Current	$I_{SC}$	$R_L = 1$	1	300		m A
			2	250		
Maximum Output Current	$I_{MAX}$		1	300		m A
Ripple Rejection	$R_R$	$V_{ripple} = 1 \text{ V}_{rms}$ $I_{OUT} = 5 \text{ mA}$ , $f = 1 \text{ kHz}$	1	50		dB

Notes: 1.  $T_A = 25^\circ C$ .  
2. Over full operating temperature range.  
3. Guaranteed, not tested.

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ELECTRICAL CHARACTERISTICS, OM2990-12N2 (-12 VOLTS)

Test Conditions are -55°C  $T_A$ , 125°C,  $V_{IN} = -17V$ ,  $C_{OUT} = 47 \mu F$  (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	$V_{OUT}$	$5 \text{ mA} \leq I_L \leq 300 \text{ mA}$	1	-12.24	-11.76	V
			2	-12.60	-11.40	
Quiescent Current	$I_Q$	$I_L \leq 300 \text{ mA}$	1		7	m A
			2		14	
Line Regulation	$V_{RLN}$	$I_L = 300 \text{ mA}$ , $V_{IN} = -12 \text{ V}$ $-13 \text{ V} \leq V_{IN} \leq -26 \text{ V}$ , $I_{OUT} = 5 \text{ mA}$	1,2		60	m V
			1		$\pm 75$	
Load Regulation	$V_{RLD}$	$50 \text{ mA} \leq I_{OUT} \leq 300 \text{ mA}$	2		$\pm 110$	m V
			1		$\pm 120$	
Dropout Voltage	$V_{DO}$	$I_L = 100 \text{ mA}$ $DV_{IN} = 100 \text{ mV}$	1		3	V
			2			
Dropout Voltage	$V_{DO}$	$I_L = 300 \text{ mA}$ $DV_{IN} = 100 \text{ mV}$	1		1	
			2			
Output Noise Voltage	$V_{ON}$	$I_L = 5 \text{ mA}$ , 10 Hz - 100 kHz	3		1650	$\mu V$
Short Circuit Current	$I_{SC}$	$R_L = 1$	1	200		m A
			2	175		
Maximum Output Current	$I_{MAX}$		1	280		m A
Ripple Rejection	$R_R$	$V_{ripple} = 1 \text{ V}_{rms}$ $I_{OUT} = 5 \text{ mA}$ , $f = 1 \text{ kHz}$	4			
			1	42		dB

Notes: 1.  $T_A = 25^\circ C$ .  
2. Over full operating temperature range.  
3. Guaranteed, not tested.  
4. The short circuit current is less than the maximum output current due to internal foldback current limiting. The -9V and -5.2V versions do not reach the foldback current limit and therefore conducts a higher short circuit level.

ELECTRICAL CHARACTERISTICS, OM2990-15 N2 (-15 VOLTS)

Test Conditions are -55°C  $T_A$ , 125°C,  $V_{IN} = -20V$ ,  $C_{OUT} = 47 \mu F$  (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	$V_{OUT}$	$5 \text{ mA} \leq I_L \leq 300 \text{ mA}$	1	-15.30	-14.70	V
			2	-15.75	-14.25	
Quiescent Current	$I_Q$	$I_L \leq 300 \text{ mA}$	1		20	m A
			2		25	
Line Regulation	$V_{RLN}$	$I_L = 300 \text{ mA}$ , $V_{IN} = -15 \text{ V}$ $-16 \text{ V} \leq V_{IN} \leq -26 \text{ V}$ , $I_{OUT} = 5 \text{ mA}$	1,2		60	m V
			1		$\pm 85$	
Load Regulation	$V_{RLD}$	$50 \text{ mA} \leq I_{OUT} \leq 300 \text{ mA}$	2		$\pm 130$	m V
			1		$\pm 135$	
Dropout Voltage	$V_{DO}$	$I_L = 100 \text{ mA}$ $DV_{IN} = 100 \text{ mV}$	1		3	V
			2			
Dropout Voltage	$V_{DO}$	$I_L = 300 \text{ mA}$ $DV_{IN} = 100 \text{ mV}$	1		1	
			2			
Output Noise Voltage	$V_{ON}$	$I_L = 5 \text{ mA}$ , 10 Hz - 100 kHz	3		1900	$\mu V$
Short Circuit Current	$I_{SC}$	$R_L = 1$	1	150		m A
			2	140		
Maximum Output Current	$I_{MAX}$		1	280		m A
Ripple Rejection	$R_R$	$V_{ripple} = 1 \text{ V}_{rms}$ $I_{OUT} = 5 \text{ mA}$ , $f = 1 \text{ kHz}$	4			
			1	42		dB

Notes: 1.  $T_A = 25^\circ C$ .  
2. Over full operating temperature range.  
3. Guaranteed, not tested.  
4. The short circuit current is less than the maximum output current due to internal foldback current limiting. The -9V and -5.2V versions do not reach the foldback current limit and therefore conducts a higher short circuit level.

ELECTRICAL CHARACTERISTICS, OM2990-5.2NK, NM, NT (-5.2 VOLTS)

Test Conditions are  $-55^{\circ}\text{C}$ ,  $T_A$ ,  $125^{\circ}\text{C}$ ,  $V_{IN} = -10.2\text{V}$ ,  $C_{OUT} = 47\mu\text{F}$  (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	$V_{OUT}$	$5\text{ mA} \leq I_O \leq 1.0\text{ A}$	1	-5.30	-5.10	V
			2	-5.46	-4.94	
Quiescent Current	$I_Q$	$I_O \leq 1.0\text{ A}$	1		5	m A
			2		12	
			1,2		50	
Line Regulation	$V_{RLN}$	$-6.2\text{ V} \leq V_{IN} \leq -26\text{ V}$ , $I_{OUT} = 5\text{ mA}$	1		$\pm 40$	m V
			2		$\pm 50$	
Load Regulation	$V_{RLD}$	$50\text{ mA} \leq I_{OUT} \leq 1.0\text{ A}$	1		$\pm 50$	m V
Dropout Voltage	$V_{DO}$	$I_O = 0.1\text{ A}$	1		3	V
			2			
			1		1	
			2			
Output Noise Voltage	$V_{ON}$	$I_O = 5\text{ mA}$ , 10 Hz - 100 kHz	3		750	$\mu\text{V}$
Short Circuit Current	$I_{SC}$	$R_L = 1$	1	1.5		A
			2	1.3		
Maximum Output Current	$I_{MAX}$		1	1.5		A
Ripple Rejection	$R_R$	$V_{ripple} = 1\text{ V}_{rms}$ , $I_{OUT} = 5\text{ mA}$ , $f = 1\text{ kHz}$	1	50		dB

Notes: 1.  $T_A = 25^{\circ}\text{C}$ .  
2. Over full operating temperature range.  
3. Guaranteed, not tested.

ELECTRICAL CHARACTERISTICS, OM2990-5.2SM, ST (-5.2 VOLTS)

Test Conditions are  $-55^{\circ}\text{C}$ ,  $T_A$ ,  $125^{\circ}\text{C}$ ,  $V_{IN} = -10.2\text{V}$ ,  $C_{OUT} = 47\mu\text{F}$  (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	$V_{OUT}$	$5\text{ mA} \leq I_O \leq 1.0\text{ A}$	1	-5.30	-5.10	V
			2	-5.46	-4.94	
Quiescent Current	$I_Q$	$I_O \leq 1.0\text{ A}$	1		5	m A
			2		12	
			1,2		50	
Line Regulation	$V_{RLN}$	$-6.2\text{ V} \leq V_{IN} \leq -26\text{ V}$ , $I_{OUT} = 5\text{ mA}$	1		$\pm 45$	m V
			2		$\pm 55$	
Load Regulation	$V_{RLD}$	$50\text{ mA} \leq I_{OUT} \leq 1.0\text{ A}$	1		$\pm 70$	m V
Dropout Voltage	$V_{DO}$	$I_O = 0.1\text{ A}$	1		3	V
			2			
			1		1	
			2			
Output Noise Voltage	$V_{ON}$	$I_O = 5\text{ mA}$ , 10 Hz - 100 kHz	3		750	$\mu\text{V}$
Short Circuit Current	$I_{SC}$	$R_L = 1$	1,2	1.27		A
Maximum Output Current	$I_{MAX}$		1	1.27		A
Ripple Rejection	$R_R$	$V_{ripple} = 1\text{ V}_{rms}$ , $I_{OUT} = 5\text{ mA}$ , $f = 1\text{ kHz}$	1	50		dB

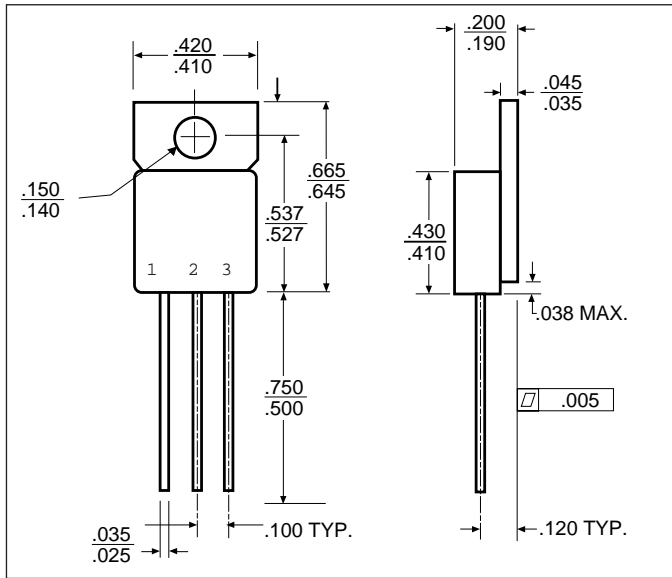
Notes: 1.  $T_A = 25^{\circ}\text{C}$ .  
2. Over full operating temperature range.  
3. Guaranteed, not tested.

ELECTRICAL CHARACTERISTICS, OM2990-5.2N2 (-5.2 VOLTS)

Test Conditions are  $-55^{\circ}\text{C}$ ,  $T_A$ ,  $125^{\circ}\text{C}$ ,  $V_{IN} = -10.2\text{V}$ ,  $C_{OUT} = 47\mu\text{F}$  (unless otherwise specified).

Parameter	Symbol	Test Conditions	Notes	Min.	Max.	Unit
Output Voltage	$V_{OUT}$	$5\text{ mA} \leq I_O \leq 300\text{ mA}$	1	-5.30	-5.10	V
			2	-5.46	-4.94	
Quiescent Current	$I_Q$	$I_O \leq 300\text{ mA}$	1		7	m A
			2		14	
			1,2		55	
Line Regulation	$V_{RLN}$	$-6.2\text{ V} \leq V_{IN} \leq -26\text{ V}$ , $I_{OUT} = 5\text{ mA}$	1		$\pm 45$	m V
			2		$\pm 60$	
Load Regulation	$V_{RLD}$	$50\text{ mA} \leq I_{OUT} \leq 300\text{ mA}$	1		$\pm 80$	m V
Dropout Voltage	$V_{DO}$	$I_O = 100\text{ mA}$	1		3	V
			2			
			1		1	
			2			
Output Noise Voltage	$V_{ON}$	$I_O = 5\text{ mA}$ , 10 Hz - 100 kHz	3		800	$\mu\text{V}$
Short Circuit Current	$I_{SC}$	$R_L = 1$	1	300		m A
			2	250		
Maximum Output Current	$I_{MAX}$		1	300		m A
Ripple Rejection	$R_R$	$V_{ripple} = 1\text{ V}_{rms}$ , $I_{OUT} = 5\text{ mA}$ , $f = 1\text{ kHz}$	1	50		dB

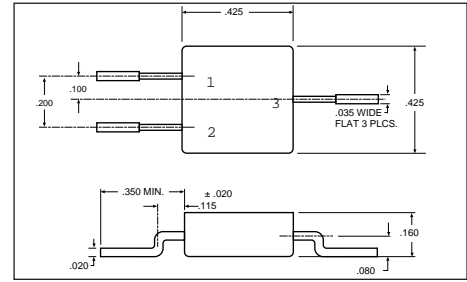
Notes: 1.  $T_A = 25^{\circ}\text{C}$ .  
2. Over full operating temperature range.  
3. Guaranteed, not tested.



TO-257AA

OM2990STM  
Isolated  
Front View  
Pin 1 - Ground  
Pin 2 - Input  
Pin 3 - Output  
Tab - Isolated

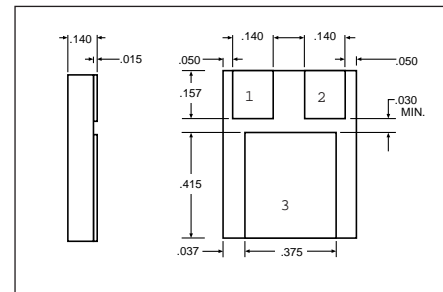
OM2990NTM  
Non-Isolated  
Front View  
Pin 1 - Ground  
Pin 2 - Input  
Pin 3 - Output  
Tab - Input



SMD-3

OM2990SMM

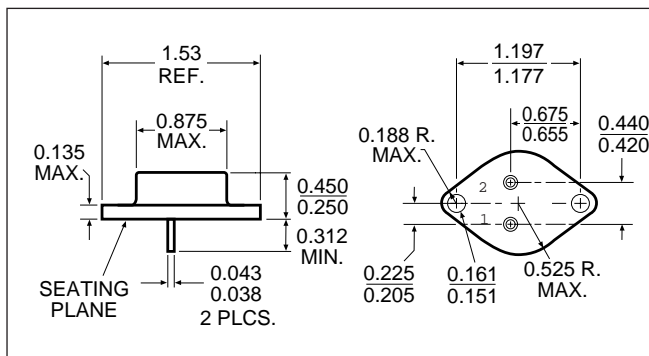
Front View  
Pin 1 - Ground  
Pin 2 - Output  
Pin 3 - Input  
Case - Isolated



SMD 1

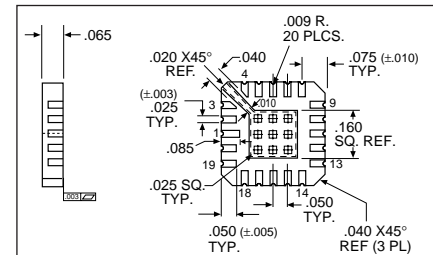
OM2990NMM

"N" PACKAGE  
Pin 1 - Ground  
Pin 2 - Output  
Pin 3 - Input



TO-204AA (TO-3)

OM2990NKM  
Pin 1 - Ground  
Pin 2 - Output



LCC 20

OM2990N2M

Pin 1	NC	Pin 11	V <sub>OUT</sub>
Pin 2	NC	Pin 12	V <sub>OUT</sub>
Pin 3	NC	Pin 13	NC
Pin 4	NC	Pin 14	NC
Pin 5	NC	Pin 15	V <sub>IN</sub>
Pin 6	Ground	Pin 16	V <sub>IN</sub>
Pin 7	NC	Pin 17	V <sub>IN</sub>
Pin 8	NC	Pin 18	NC
Pin 9	V <sub>OUT</sub> (Sense)	Pin 19	NC

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Распределительные склады, находящиеся в России, Европе и в Китае, позволяют нам оперативно поставить необходимые компоненты в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям ISO 9001:2011

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