



IMT17

DUAL PNP SMALL SIGNAL SURFACE MOUNT TRANSISTOR

Features

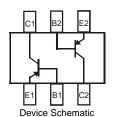
- Epitaxial Planar Die Construction
- Small Surface Mount Package
- Lead Free By Design/RoHS Compliant (Note 1)
- "Green" Device (Note 2)

Mechanical Data

- Case: SOT-26
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminal Connections: See Diagram
- Terminals: Finish Matte Tin Annealed Over Copper Leadframe.
 Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.016 grams (approximate)







Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	
Collector-Base Voltage	V _{CBO}	-60	V	
Collector-Emitter Voltage	V _{CEO}	-50	V	
Emitter-Base Voltage	V _{EBO}	-5.0	V	
Continuous Collector Current	Ic	-500	mA	

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 3) @T _A = 25°C	P_{D}	300	mW
Thermal Resistance, Junction to Ambient Air (Note 3) @T _A = 25°C	$R_{ hetaJA}$	417	°C /W
Operating and Storage Temperature Range	T_J , T_{STG}	-55 to +150	°C

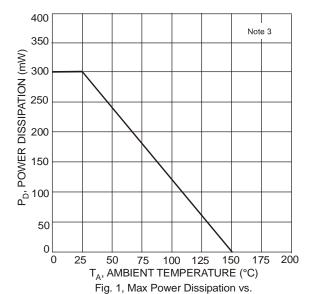
Electrical Characteristics @TA = 25°C unless otherwise specified

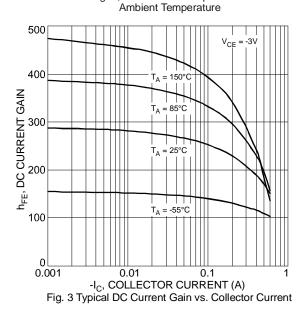
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 4)						
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-60	_	_	V	$I_C = -100 \mu A$
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-50	_	_	V	$I_C = -1.0 \text{mA}$
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5.0	_	_	V	$I_E = -100 \mu A$
Collector Cutoff Current	I _{CBO}	_	_	-0.1	μΑ	V _{CB} = -30V
Emitter Cutoff Current	I _{EBO}	_	_	-0.1	μА	$V_{EB} = -4.0V$
ON CHARACTERISTICS (Note 4)						
DC Current Gain	h _{FE}	120		390	_	$V_{CE} = -3.0V, I_{C} = -100mA$
Collector-Emitter Saturation Voltage (Note 3)	V _{CE(SAT)}	_	_	-0.6	V	$I_C = -500 \text{mA}, I_B = -50 \text{mA}$
SMALL SIGNAL CHARACTERISTICS						
Gain Bandwidth Product	f⊤	_	200	_	MHz	V _{CE} = -5V, I _E = 20mA, f = 100MHz
Output Capacitance	C _{ob}	_	7	_	pF	$V_{CB} = -10V$, $I_{E} = 0$, $f = 1MHz$

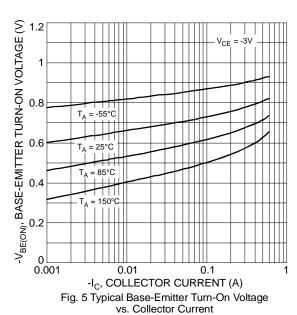
Notes:

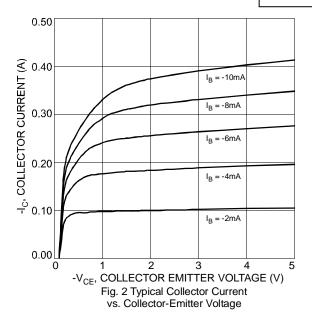
- 1. No purposefully added lead.
- 2. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
- 3. Device mounted on FR-4 PCB; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on page 4 or on our website at http://www.diodes.com/datasheets/ap02001.pdf.
- 4. Short duration pulse test used to minimize self-heating effect.

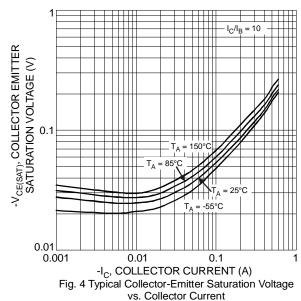


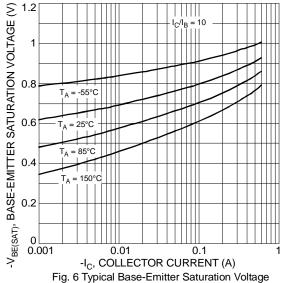




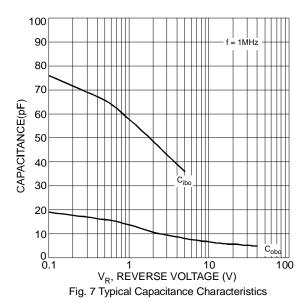












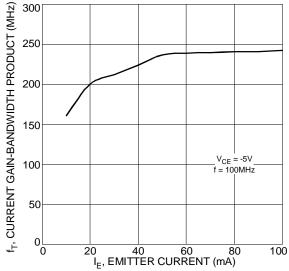


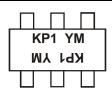
Fig. 8 Typical Gain-Bandwidth Product vs. Emitter Current

Ordering Information (Note 5)

Part Number	Case	Packaging
IMT17-7	SOT-26	3000/Tape & Reel

Notes: 5. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



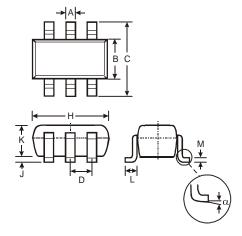
KP1 = Product Type Marking Code YM = Date Code Marking Y = Year (ex: V = 2008)

M = Month (ex: 9 = September)

Date Code Key

Year	2007	20	08	2009	2010	20	11	2012	2013	20	14	2015
Code	U	\	/	W	X	`	Y	Z	Α	E	3	С
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	0	N	D

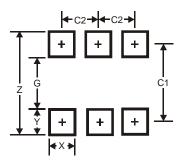
Package Outline Dimensions



Dim A B	Min 0.35	Max	Тур	
	0.35			
IJ		0.50	0.38	
ם	1.50	1.70	1.60	
C	2.70	3.00	2.80	
D			0.95	
Н	2.90	3.10	3.00	
L	0.013	0.10	0.05	
K	1.00	1.30	1.10	
L	0.35	0.55	0.40	
M	0.10	0.20	0.15	
α	0°	8°	_	
All Dimensions in mm				



Suggested Pad Layout



Dimensions	Value (in mm)
Z	3.20
G	1.60
Х	0.55
Υ	0.80
C1	2.40
C2	0.95

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Офис по работе с юридическими лицами:

105318, г. Москва, ул. Щербаковская д. 3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru moschip.ru_6 moschip.ru 4 moschip.ru 9