

3A HIGH VOLTAGE SCHOTTKY BARRIER RECTIFIER PowerDI® 5

Features

- Guard Ring Die Construction for Transient Protection
- Low Forward Voltage Drop
- Very Low Leakage Current
- Highly Stable Oxide Passivated Junction
- High Forward Surge Current Capability
- Lead Free Finish, RoHS Compliant (Note 1)
- "Green" Molding Compound (No Br, Sb)
- Qualified to AEC-Q101 Standards for High Reliability

Mechanical Data

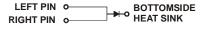
- Case: PowerDI[®]5
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Matte Tin annealed over Copper leadframe.
 Solderable per MIL-STD-202, Method 208 (3)
- Polarity: See Diagram
- Weight: 0.096 grams (approximate)



Top View



Bottom View



Note: Pins Left & Right must be electrically connected at the printed circuit board.

Part Number	Case	Packaging
PDS3200-13	PowerDI [®] 5	5000/Tape & Reel

Notes: 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.

2. For packaging details, go to our website at http://www.diodes.com.

Marking Information

Ordering Information (Note 2)



S3200 = Product type marking code

| | = Manufacturers' code marking

YYWW = Date code marking

YY = Last digit of year (ex: 04 for 2004)

WW = Week code (01 - 53)

K = Factory Designator



Maximum Ratings @TA = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	200	>
RMS Reverse Voltage	V _{R(RMS)}	141	V
Average Rectified Output Current (See also figure 5)	Io	3	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load	I _{FSM}	180	Α

Thermal Characteristics

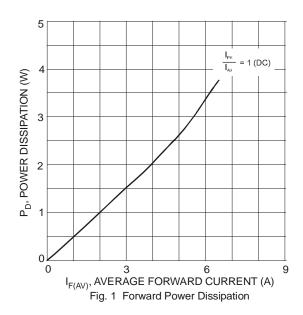
Characteristic	Symbol	Тур	Max	Unit
Thermal Resistance Junction to Soldering Point	$R_{ hetaJS}$	_	2.0	°C/W
Thermal Resistance Junction to Ambient Air (Note 3) T _A = 25°C	$R_{ hetaJA}$	75	_	°C/W
Thermal Resistance Junction to Ambient Air (Note 4) T _A = 25°C	$R_{ hetaJA}$	60	_	°C/W
Thermal Resistance Junction to Ambient Air (Note 5) T _A = 25°C	$R_{ hetaJA}$	45	_	°C/W
Operating Temperature Range	T_J	-65 to +150		°C
Storage Temperature Range	T _{STG}	-65 to	+175	°C

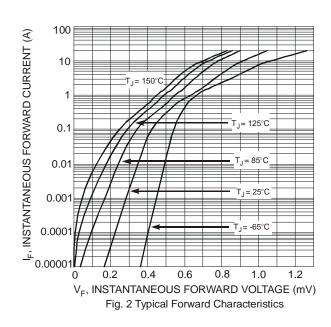
Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	$V_{(BR)R}$	200	_	_	V	$I_R = 10\mu A$
rward Voltage	V _F	_	0.75	0.78	V	I _F = 3A, T _S = 25°C
		_	0.59	0.64		$I_F = 3A, T_S = 125^{\circ}C$
		_	0.82	0.88		I _F = 6A, T _S = 25°C
		_	0.66	0.71		I _F = 6A, T _S = 125°C
rerse Leakage Current (Note 6)	1-	_	1	10	μА	$T_S = 25^{\circ}C, V_R = 200V$
Neverse Leakage Current (Note o)	IR	_	0.8	4.5	mA	$T_S = 125^{\circ}C$, $V_R = 200V$

Notes:

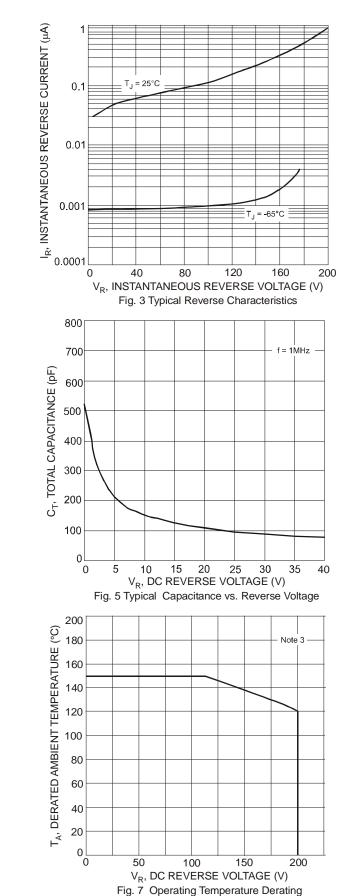
- FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per http://www.diodes.com.
 Polymide PCB, 2 oz. Copper, minimum recommended pad layout per http://www.diodes.com.
 Polymide PCB, 2 oz. Copper. Cathode pad dimensions 9.4mm x 7.2mm. Anode pad dimensions 2.7mm x 1.6mm.
 Short duration pulse test used to minimize self-heating effect.

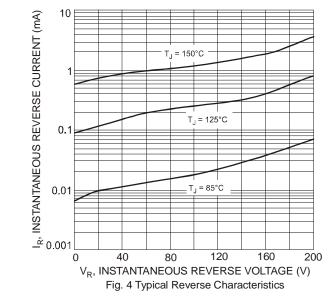


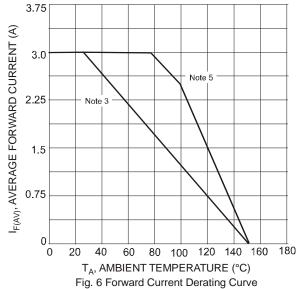


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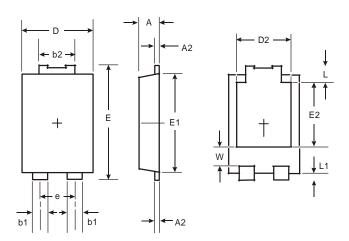






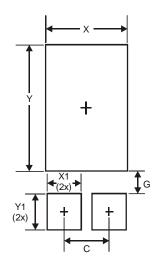


Package Outline Dimensions



	PowerDI [®] 5			
Dim	Min	Max		
Α	1.05	1.15		
A2	0.33	0.43		
b1	0.80	0.99		
b2	1.70	1.88		
D	3.90	4.05		
D2	3.054 Typ			
Е	6.40	6.60		
е	1.84	Тур		
E1	5.30	5.45		
E2	3.549 Typ			
L	0.75	0.95		
L1	0.50	0.65		
W	1.10	1.41		
All Di	All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
C	1.840
G	0.852
Х	3.360
X1	1.390
Υ	4.860
Y1	1.400



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многоканальный

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