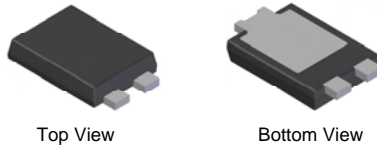


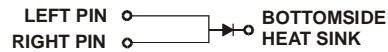
Features

- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- Low Reverse Leakage Current
- For Use in High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- 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-020D
- Terminals: Finish – Matte Tin annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 **e3**
- Polarity: See Diagram
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.096 grams (approximate)



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

Maximum Ratings @T_A = 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	V _{RRM}	60	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	42	V
Average Rectified Output Current	I _O	7	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load	I _{FSM}	275	A

Thermal Characteristics

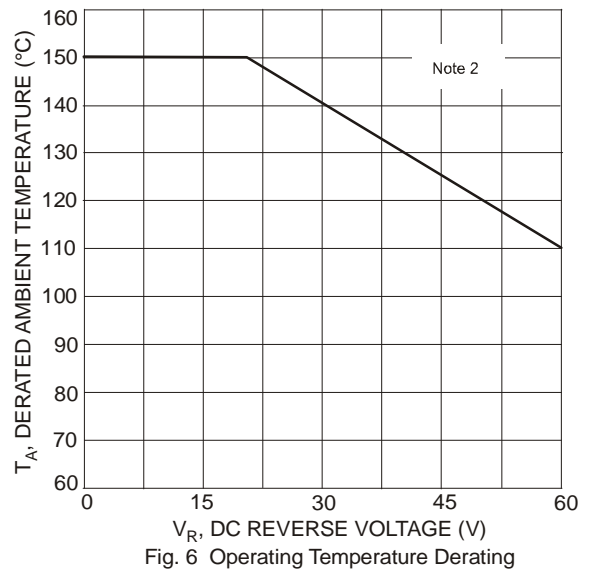
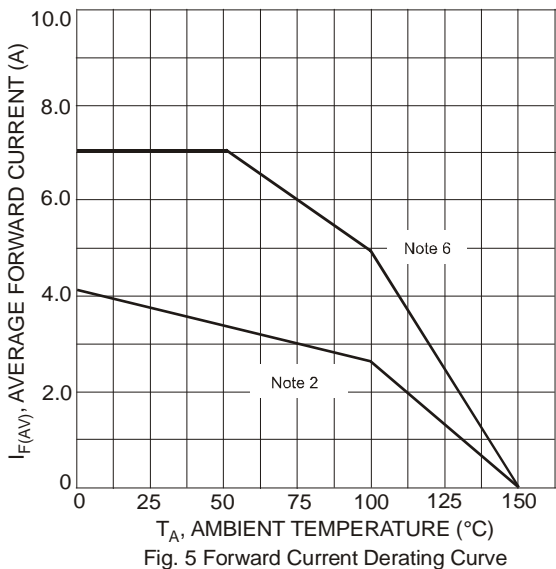
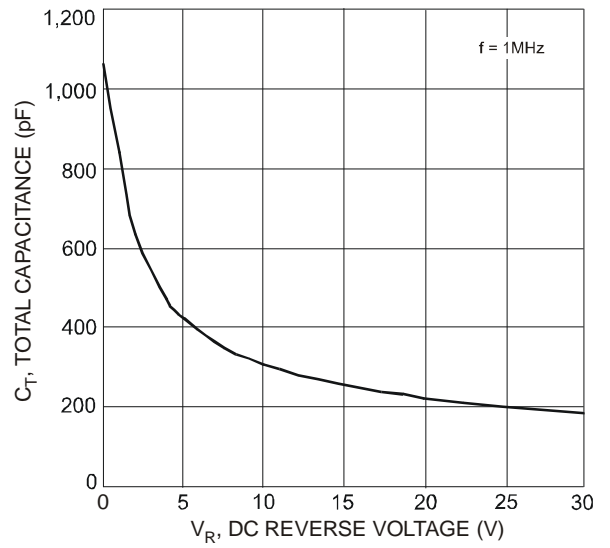
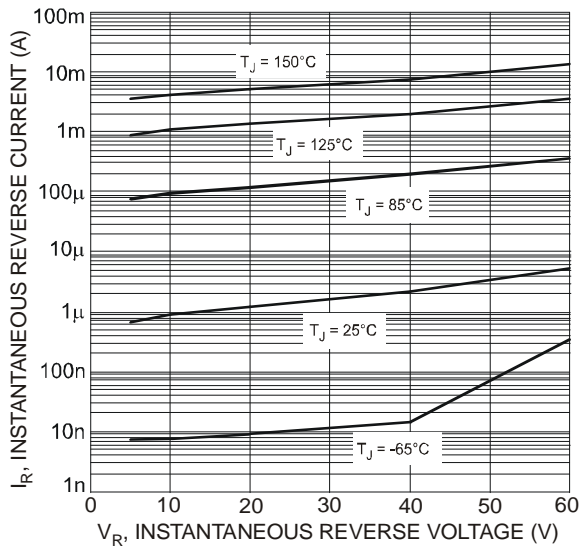
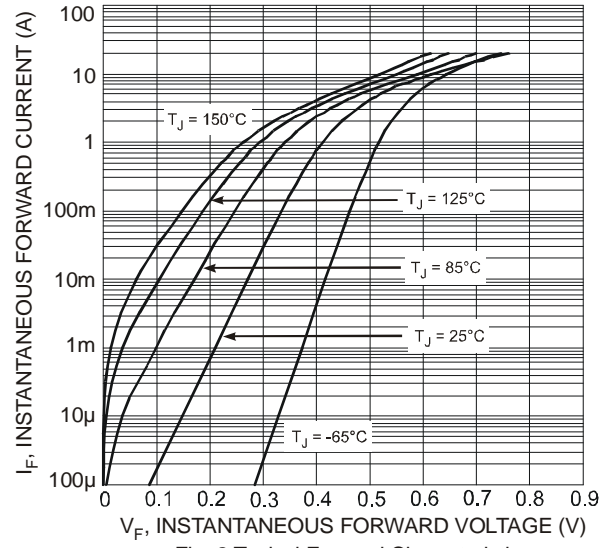
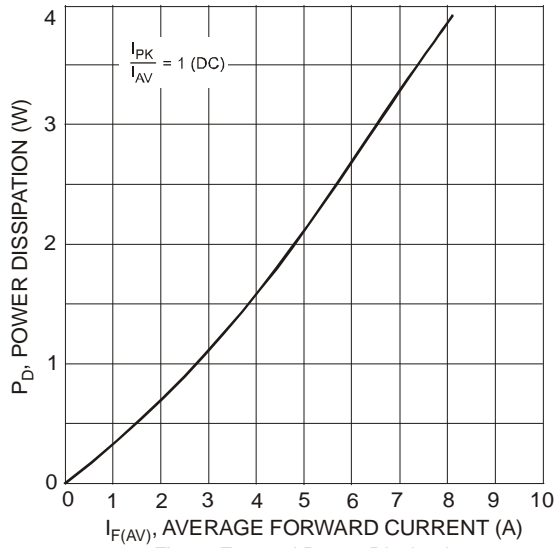
Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance Junction to Soldering Point	R _{θJS}	—	1.5	°C/W
Thermal Resistance Junction to Ambient Air (Note 2) T _A = 25°C	R _{θJA}	85	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 3) T _A = 25°C	R _{θJA}	70	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 4) T _A = 25°C	R _{θJA}	45	—	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150		°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	V _{(BR)R}	60	—	—	V	I _R = 0.2mA
Forward Voltage	V _F	—	0.48	0.54	V	I _F = 3.5A, T _S = 25°C
		—	0.41	0.47		I _F = 3.5A, T _S = 125°C
		—	0.56	0.62		I _F = 7A, T _S = 25°C
		—	0.50	0.56		I _F = 7A, T _S = 125°C
Reverse Leakage Current (Note 5)	I _R	—	6	200	μA	T _S = 25°C, V _R = 60V
		—	4	20	mA	T _S = 125°C, V _R = 60V

- Notes:
1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see *EU Directive 2002/95/EC Annex Notes*.
 2. FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com/datasheets/ap02001.pdf>.
 3. Polyimide PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com/datasheets/ap02001.pdf>.
 4. Polyimide PCB, 2 oz. Copper. Cathode pad dimensions 9.4mm x 7.2mm. Anode pad dimensions 2.7mm x 1.6mm.
 5. Short duration pulse test used to minimize self-heating effect.
 6. Polyimide PCB, 2 oz. Copper. Cathode pad dimensions 18.8 mm x 14.4 mm. Anode pad dimensions 5.6 mm x 3.0 mm.

PowerDI is a registered trademark of Diodes Incorporated.



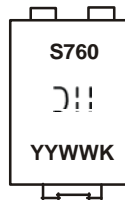
PowerDI is a registered trademark of Diodes Incorporated.

Ordering Information (Note 7)

Part Number	Case	Packaging
PDS760-13	PowerDI [®] 5	5000/Tape & Reel

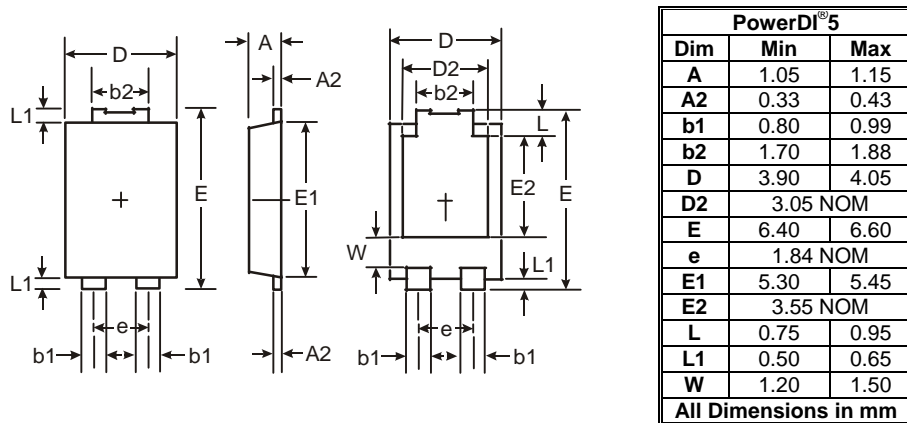
Notes: 7. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information

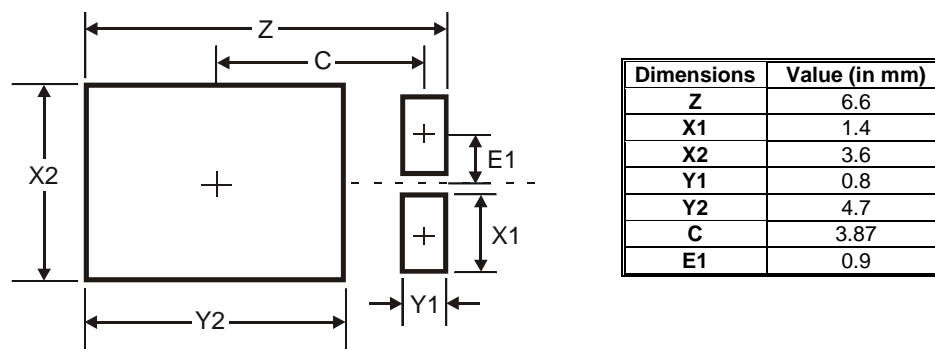


S760 = Product type marking code
 ⌋|| = Manufacturers' code marking
 YYWW = Date code marking
 YY = Last two digits of year ex: 05 for 2005
 WW = Week code 01 to 52
 K = Factory Designator

Package Outline Dimensions



Suggested Pad Layout



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