

Product Summary

V _{RRM} (V)	I _o (A)	V _F Max (V)	I _R Max (μA)
60	2	0.62	100

Applications

- Bridge Diodes
- Blocking Diodes
- Reverse Protection Diodes

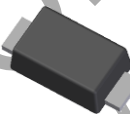
Features and Benefits

- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Leakage Current
- Patented Interlocking Clip Design for High Surge Current Capacity
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

Mechanical Data

- Case: PowerDI[®]123
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Polarity Indicator: Cathode Band
- Terminals: Matte Tin Finish Annealed over Copper Leadframe. Solderable per MIL-STD-202, Method 208 (e3)
- Weight: 0.018 grams (Approximate)

PowerDI123



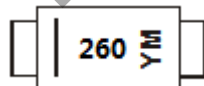
Top View

Ordering Information (Note 4)

Part Number	Case	Packaging
SDM260P1-7	PowerDI123	3,000/Tape & Reel

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
 2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 4. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

Marking Information



260 = Product Type Marking Code
 YM = Date Code Marking
 Y = Year (ex: G = 2019)
 M = Month (ex: 5 = May)

Date Code Key

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Code	E	F	G	H	I	J	K	L	M	N	O	P

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive 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		
Average Forward Current	I _{F(AV)}	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	60	A

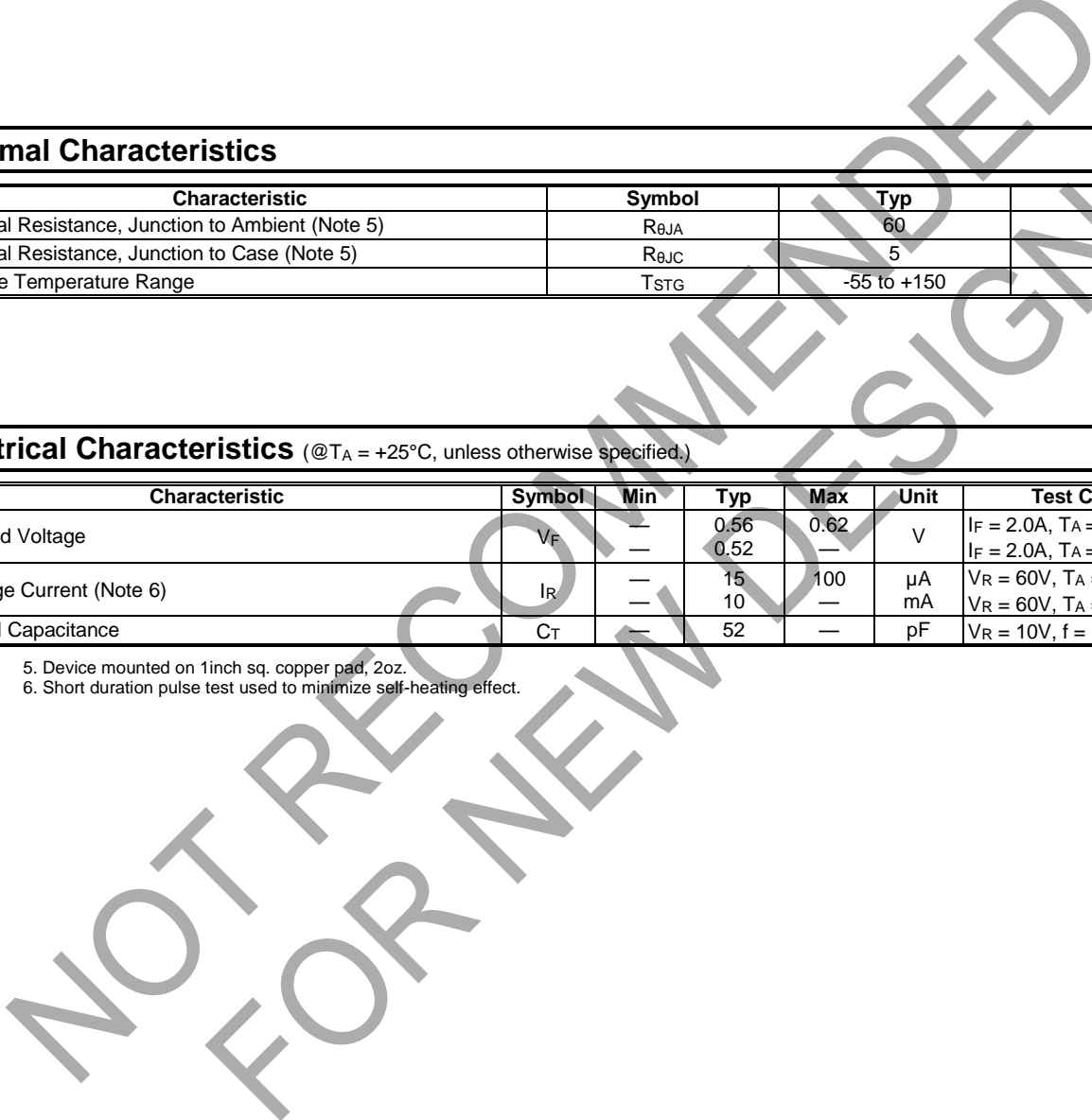
Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	60	°C/W
Thermal Resistance, Junction to Case (Note 5)	R _{θJC}	5	°C/W
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	V _F	—	0.56	0.62	V	I _F = 2.0A, T _A = +25 °C
		—	0.52	—		I _F = 2.0A, T _A = +125 °C
Leakage Current (Note 6)	I _R	—	15	100	μA	V _R = 60V, T _A = +25°C
		—	10	—		mA
Typical Capacitance	C _T	—	52	—	pF	V _R = 10V, f = 1.0MHz

Notes: 5. Device mounted on 1inch sq. copper pad, 2oz.
6. Short duration pulse test used to minimize self-heating effect.



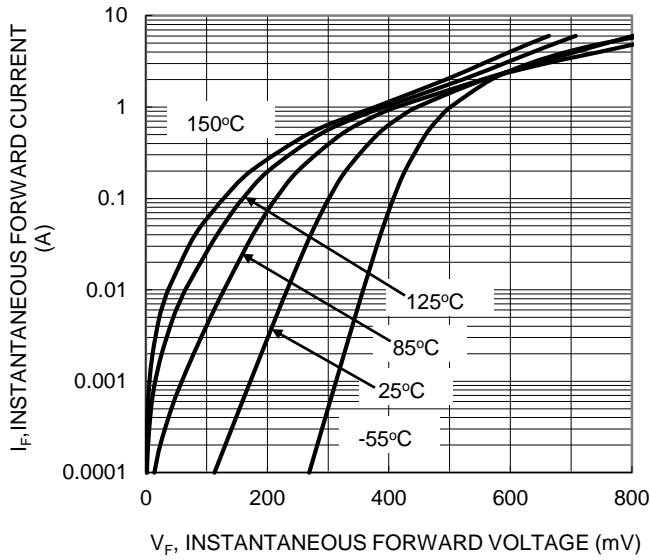


Figure 1. Typical Forward Characteristics

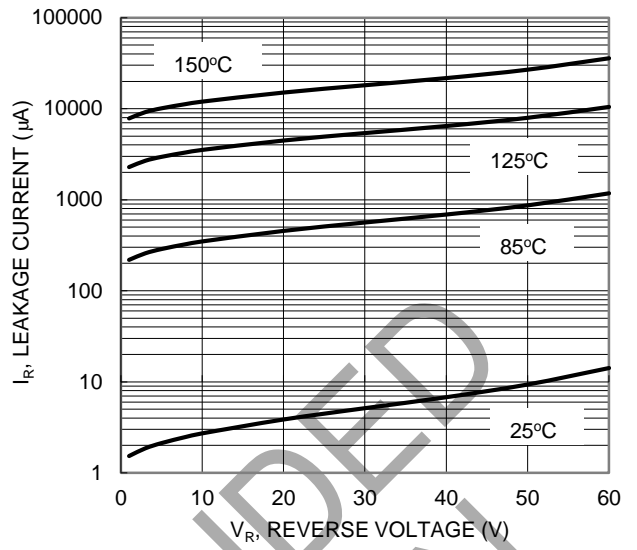


Figure 2. Typical Reverse Characteristics

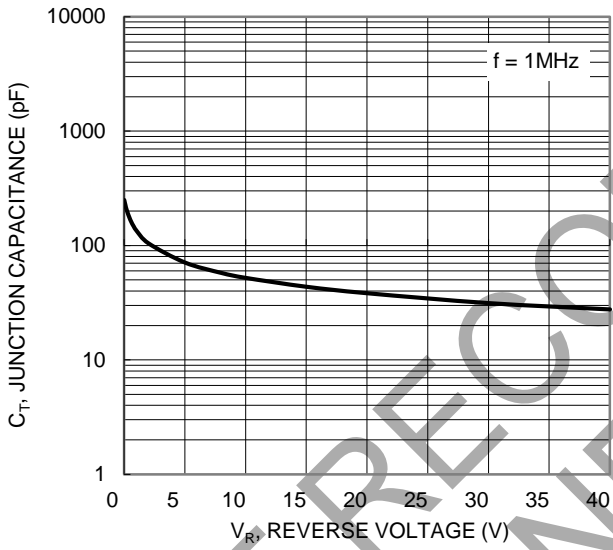


Figure 3. Typical Junction Capacitance

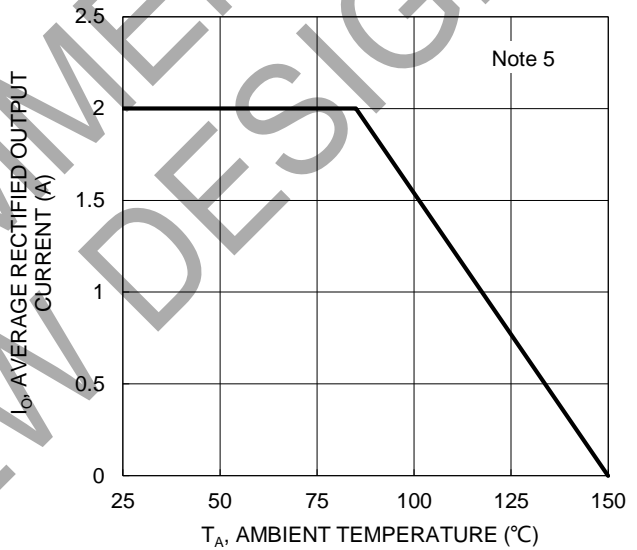


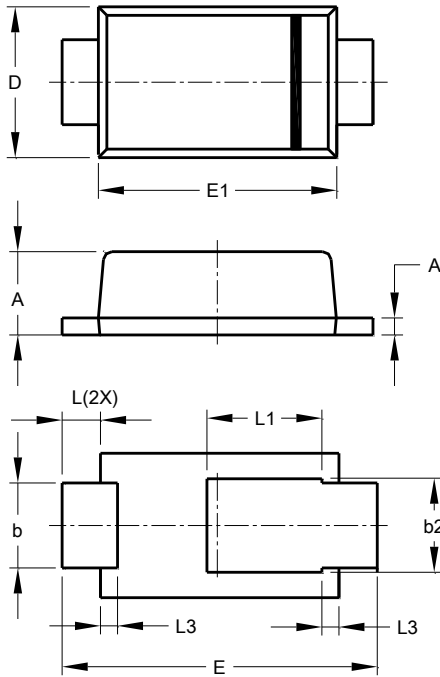
Figure 4. DC Forward Current Derating

NOT RECOMMENDED FOR NEW DESIGN

Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

PowerDI123



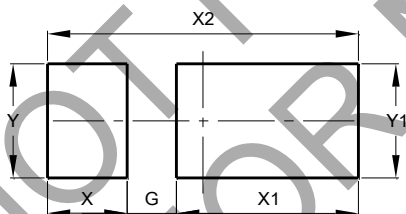
PowerDI123			
Dim	Min	Max	Typ
A	0.93	1.00	0.98
A3	0.15	0.25	0.20
b	0.85	1.25	1.00
b2	1.025	1.125	1.10
D	1.63	1.93	1.78
E	3.50	3.90	3.70
E1	2.60	3.00	2.80
L	0.40	0.50	0.45
L1	1.25	1.40	1.35
L3	0.125	0.275	0.20

All Dimensions in mm

Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

PowerDI123



Dimensions	Value (in mm)
G	0.65
X	1.05
X1	2.40
X2	4.10
Y	1.50
Y1	1.50

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