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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Forward Current @ T_T = 120°C	$I_{F(AV)}$	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	40	A
Power Dissipation (Note 5)	P_D	1.67	W
Power Dissipation (Note 6)	P_D	556	mW
Thermal Resistance Junction to Ambient (Note 5)	$R_{\Theta JA}$	60	°C/W
Thermal Resistance Junction to Ambient (Note 6)	$R_{\Theta JA}$	180	°C/W
Thermal Resistance Junction to Soldering (Note 7)	$R_{\Theta JS}$	10	°C/W
Operating Temperature Range	T_j	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +125	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 8)	$V_{(BR)R}$	30	—	—	V	I_R = 1.5mA
Forward Voltage	V_F	—	0.36 0.4	0.42 0.49	V	I_F = 1.0A I_F = 2.0A
Leakage Current (Note 8)	I_R	—	0.15	1.0	mA	V_R = 30V, T_A = 25°C
Total Capacitance	C_T	—	75	—	pF	V_R = 10V, f = 1.0MHz

Notes:
5. Part mounted on 50.8mm × 50.8mm GETEK board with 25.4mm × 25.4mm copper pad, 25% anode, 75% cathode. TA = 25°C.
6. Part mounted on FR-4 board with 1.8mm × 2.5mm cathode and 1.8mm × 1.2mm anode, 1 oz. copper pads. TA = 25°C.
7. Theoretical R9JS calculated from the top center of the die straight down to the PCB cathode tab solder junction
8. Short duration pulse test to minimize self-heating effect.
9. RoHS revision 13.2.2003. High Temperature Solder Exemption Applied, see EU Directive Annex Note 7.

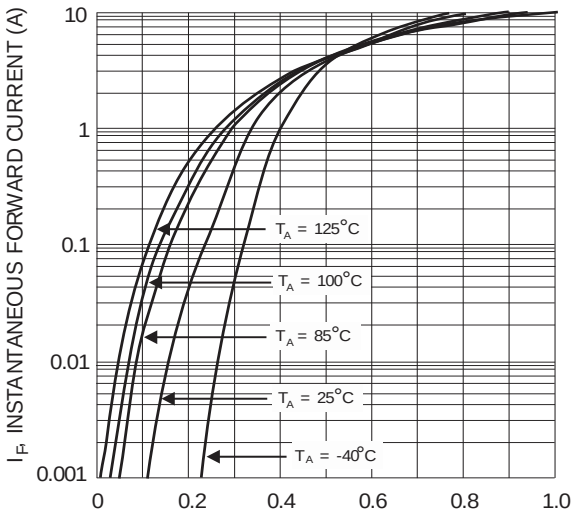


Fig. 1, Typical Forward Characteristics

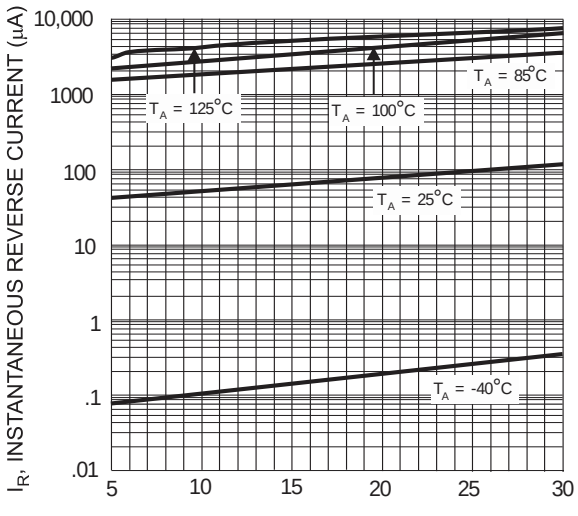


Fig. 2, Typical Reverse Characteristics

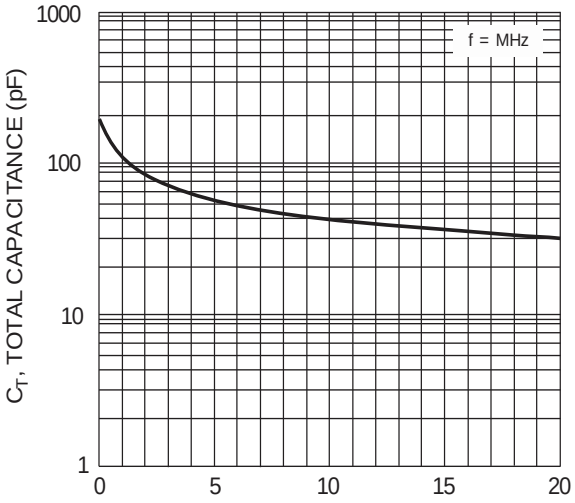
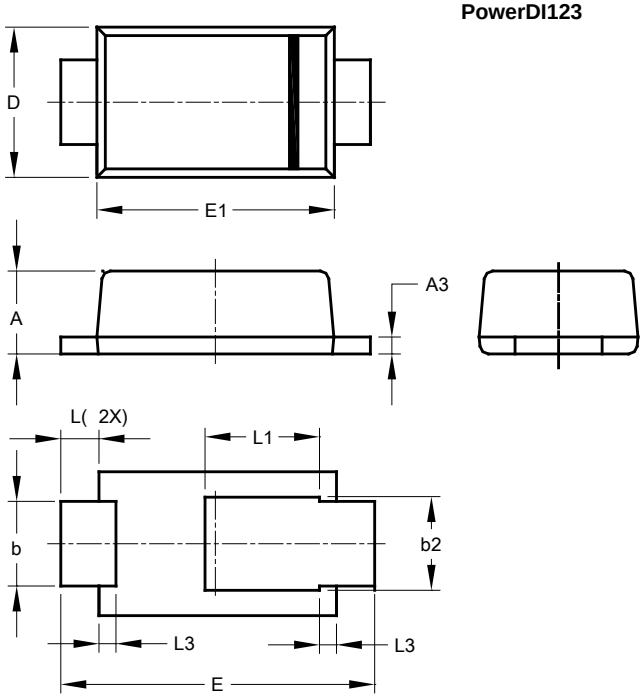


Fig. 3, Typical Total Capacitance

Package Outline Dimensions

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

PowerDI123

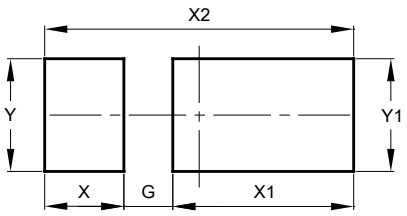


PowerDI123			
Dim	**Min**	**Max**	**Typ**
A	0.93	1.00	0.98
A3	0.15	0.25	0.20
b	0.85	1.25	1.00
b2	1.025	1.125	1.10
D	1.63	1.93	1.78
E	3.50	3.90	3.70
E1	2.60	3.00	2.80
L	0.40	0.50	0.45
L1	1.25	1.40	1.35
L3	0.125	0.275	0.20
All Dimensions in mm			

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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