

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 _{RM} V _{RWM} V _R	100	٧
RMS Reverse Voltage	V _{R(RMS)}	71	V
Average Rectified Output Current	lo	2.0	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	50	А

Thermal Characteristics

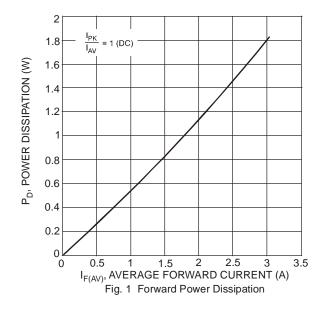
Characteristic	Symbol	Тур	Max	Unit
Thermal Resistance Junction to Soldering (Note 5)	$R_{ heta JS}$	_	7	°C/W
Thermal Resistance Junction to Ambient (Note 6) (T _A = +25°C)	$R_{\theta JA}$	125	_	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +175		°C

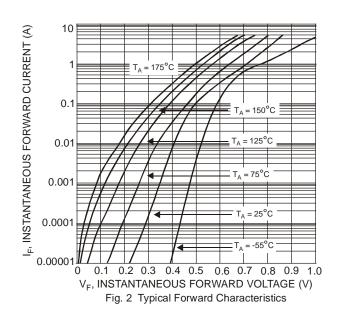
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 7)	$V_{(BR)R}$	100			V	$I_R = 1\mu A$
Forward Voltage	V _F		_	0.77 0.86	· · · / /	I _F = 1.0A I _F = 2.0A
Leakage Current (Note 7)	I _R			1	μΑ	$V_R = 100V$
Total Capacitance	C_{T}		36		рF	$V_R = 5VDC$, $f = 1MHz$

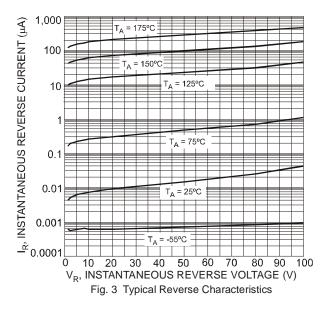
Notes:

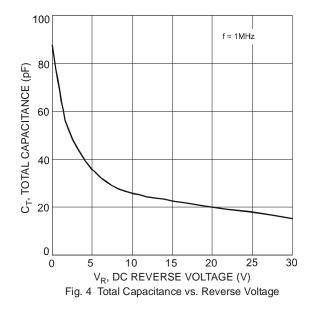
- 5. Theoretical $R_{\theta,JS}$ calculated from the top center of the die straight down to the PCB/cathode tab solder junction.
- 6. Part mounted on FR-4 board with 2 oz., minimum recommended copper pad layout, which can be found on our website at http://www.diodes.com/package-outlines.html.
- 7. Short duration pulse test used to minimize self-heating effect.

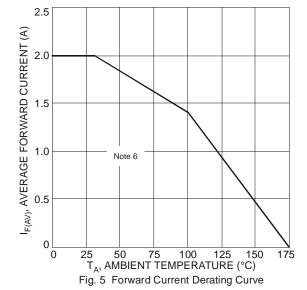










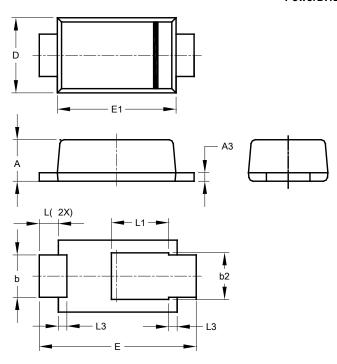




Package Outline Dimensions

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

PowerDI123

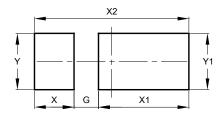


PowerDI123				
Dim	Min	Max	Тур	
Α	0.93	1.00	0.98	
A3	0.15	0.25	0.20	
b	0.85	1.25	1.00	
b2	1.025	1.125	1.10	
D	1.63	1.93	1.78	
Е	3.50	3.90	3.70	
E1	2.60	3.00	2.80	
L	0.40	0.50	0.45	
L1	1.25	1.40	1.35	
L3	0.125	0.275	0.20	
All Dimensions in mm				

Suggested Pad Layout

 $\label{prop:lease} Please see \ http://www.diodes.com/package-outlines.html \ for \ the \ latest \ version.$

PowerDI123



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



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