

Maximum Ratings $@T_A = 25^{\circ}C$ unless otherwise specified

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage (Note 5) Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _{RM}	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Average Rectified Output Current (See Figure 1)	Io	1.0	А
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	5	А
Non-Repetitive Peak Forward Surge Current 15s Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	2.6	А

Thermal Characteristics

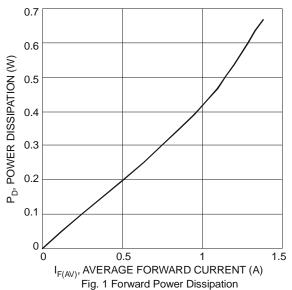
Characteristic	Symbol	Value	Unit
Power Dissipation	PD	400	mW
Maximum Thermal Resistance Junction to Ambient (Note 6)	$R_{ heta JA}$	190	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Forward Voltage Drop	VF	-	0.39	0.42	V	I _F = 0.5A, T _J = 25°C
		-	0.46	0.49		$I_F = 1.0A, T_J = 25^{\circ}C$
		-	0.34	0.37		I _F = 0.5A, T _J = 125°C
		-	0.43	0.47		I _F = 1.0A, T _J = 125°C
Leakage Current (Note 7)	I _R	-	-	50	μΑ	$V_R = 40V, T_J = 25^{\circ}C$
		-	-	100	mA	V _R = 40V, T _J = 125°C

Notes:

 $\begin{array}{l} 5. \ V_{\text{RRM}} \ characteristic is base on 1mA leakage current test condition \\ 6. \ Device mounted on Polymide substrate 1" x 1", 2oz. Copper double sided PCB board. \\ 7. \ Short \ duration \ pulse test \ used to minimize \ self-heating effect. \end{array}$



I_F, INSTANTANEOUS FORWARD CURRENT (A) $T_A = 25^{\circ}C$ 0.001 $T_{\Delta} = -55^{\circ}C$ 0.0001 0.1 0.2 0.3 0.5 0.4 0 V_F, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics

0.1 T_A

0.01

= 150°C T∆

 $T_A = 85^{\circ}C$

= 125°C

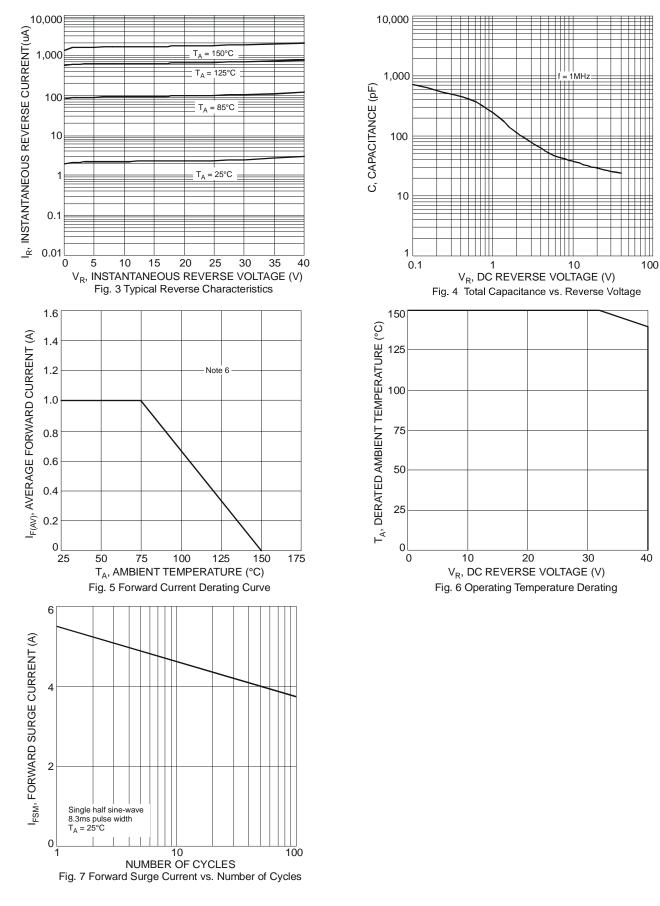
0.8

0.6

0.7



SBR1U40LP

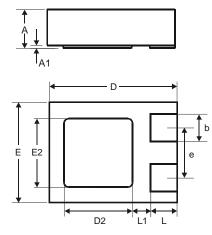


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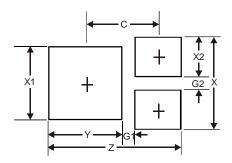


Package Outline Dimensions



X1-DFN1411-3			
Dim	Min	Max	Тур
Α	0.47	0.53	0.50
A1	0	0.05	0.02
b	0.25	0.35	0.30
D	1.35	1.475	1.40
D2	0.65	0.85	0.75
ш	1.05	1.175	1.10
E2	0.65	0.85	0.75
e			0.55
L	0.225	0.325	0.275
L1			0.20
All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
Z	1.38
G1	0.15
G2	0.15
Х	0.95
X1	0.75
X2	0.40
Ŷ	0.75
С	0.76



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