

Low V_F Silicon Power Schottky Diode

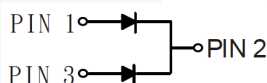
$$V_{RRM} = 40 \text{ V}$$

$$I_{F(AV)} = 160 \text{ A}$$

Features

- High Surge Capability
- Isolated to Plate
- Not ESD Sensitive

TO-249AB Package



Maximum ratings, at $T_j = 25^\circ\text{C}$, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	FST16040L	Unit
Maximum recurrent peak reverse voltage	V_{RRM}		40	V
Maximum RMS voltage	V_{RMS}		28	V
Maximum DC blocking voltage	V_{DC}		40	V
Operating temperature	T_j		-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	$^\circ\text{C}$

Electrical characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	FST16040L	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 100^\circ\text{C}$	160	A
Peak forward surge current (per leg)	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	1000	A
Maximum instantaneous forward voltage (per leg)	V_F	$I_{FM} = 80 \text{ A}$, $T_j = 25^\circ\text{C}$	0.60	V
Maximum instantaneous reverse current at rated DC blocking voltage (per leg)	I_R	$T_j = 25^\circ\text{C}$	2	mA
		$T_j = 100^\circ\text{C}$	200	

Thermal characteristics

Maximum thermal resistance, junction - case (per leg)	$R_{\theta JC}$		0.50	$^\circ\text{C/W}$
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Figure .1-Typical Forward Characteristics

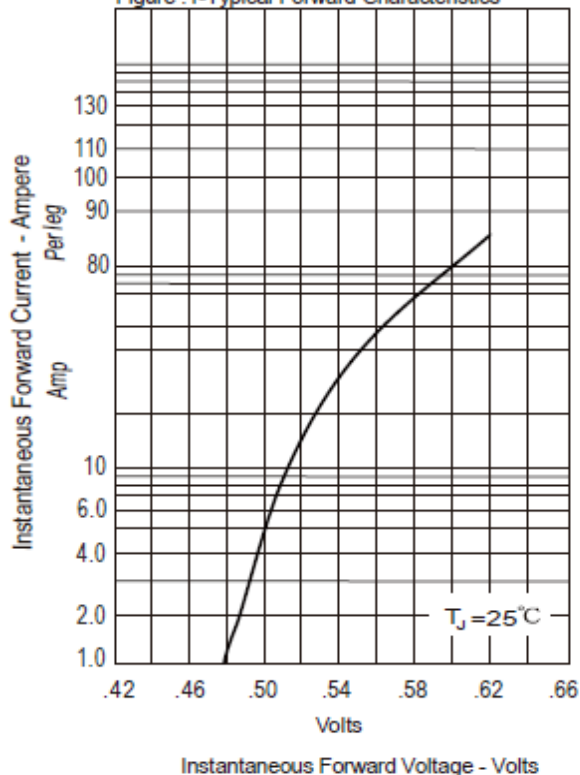


Figure .2- Forward Derating Curve

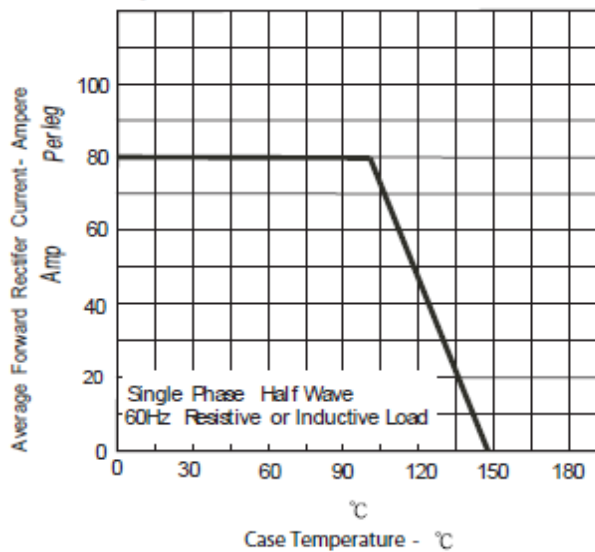


Figure .4- Typical Reverse Characteristics

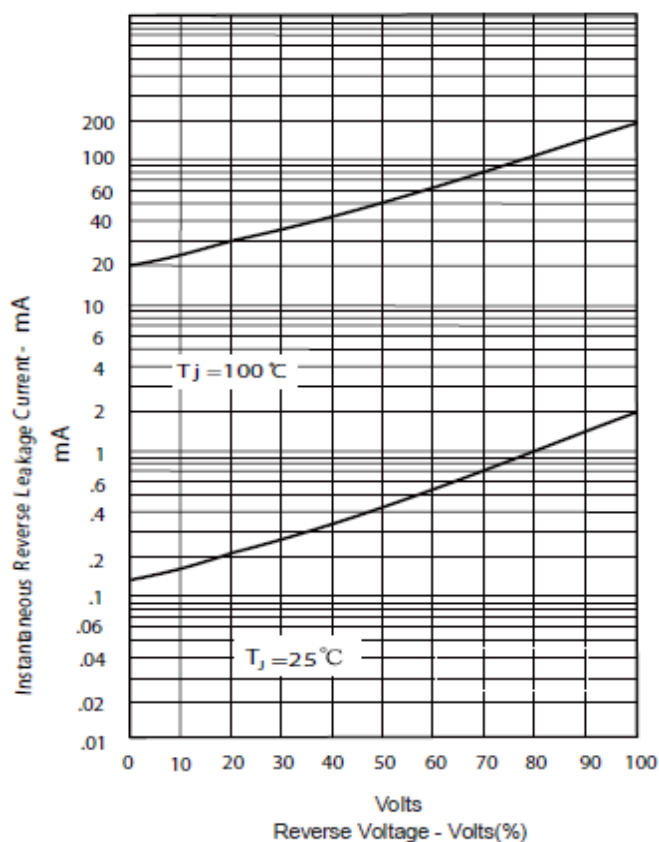
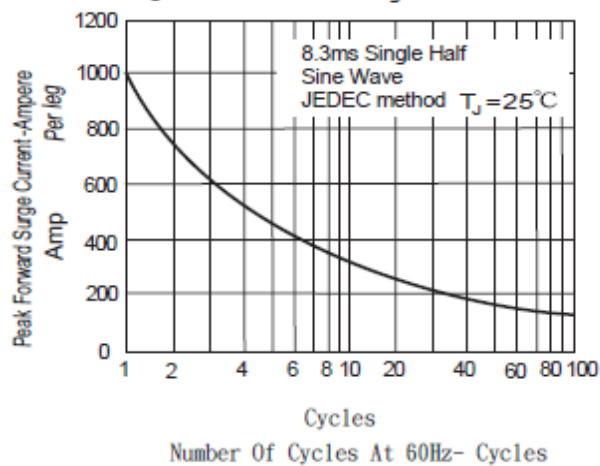
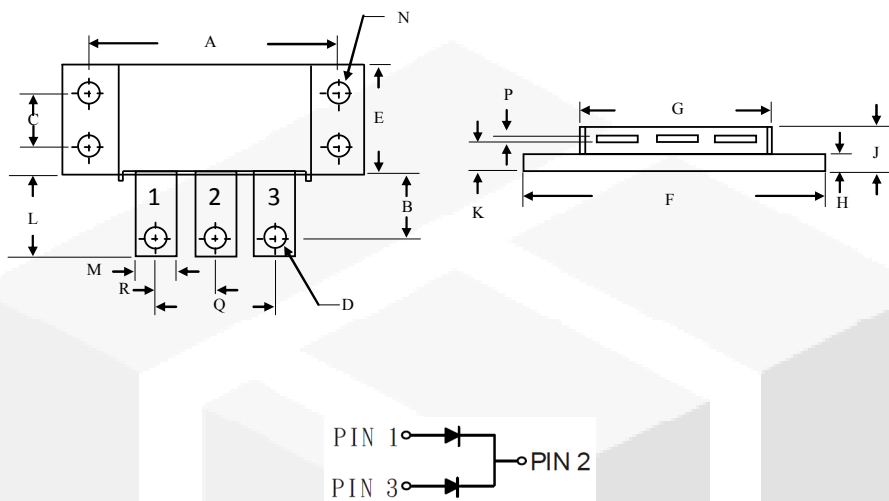


Figure.3-Peak Forward Surge Current



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



	Inches		Millimeters	
	Min	Max	Min	Max
A	1.995	2.005	50.67	50.93
B	0.300	0.325	7.62	8.26
C	0.495	0.505	12.57	12.83
D	0.182	0.192	4.62	4.88
E	0.990	1.010	25.15	26.65
F	2.390	2.410	60.71	61.21
G	1.495	1.525	37.90	38.70
H	0.114	0.122	2.90	3.10
J	-----	0.420	-----	10.67
K	0.256	0.275	6.5	7.0
L	0.490	0.510	12.45	12.95
M	0.330	0.350	8.38	8.90
N	0.175	0.195	4.45	4.95
P	0.035	0.045	0.89	1.14
R	0.445	0.455	11.30	11.56
Q	0.890	0.910	22.61	23.11

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