Silicon Power Schottky Diode

V_{RRM} = 20 V - 40 V
$I_{F(AV)}$ = 160 A

Features

- High Surge Capability
- Types from 20 V to 40V V_{RRM}
- Isolated to Plate
- Not ESD Sensitive

TO-249AB Package



RoHS COMPLIANT

REACH COMPLIANCE

Maximum ratings, at T_j = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	FST16020	FST16030	FST16035	FST16040	Unit
Repetitive peak reverse voltage	V_{RRM}		20	30	35	40	V
RMS reverse voltage	V_{RMS}		14	21	25	28	V
DC blocking voltage	V_{DC}		20	30	35	40	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	FST16020	FST16030	FST16035	FST16040	Unit
Average forward current (per pkg)	$I_{F(AV)}$	T_C = 125 °C	160	160	160	160	A
Peak forward surge current (per leg)	I_{FSM}	t_p = 8.3 ms, half sine	1000	1000	1000	1000	A
Maximum instantaneous forward voltage (per leg)	V_F	I_{FM} = 80 A, T_j = 25 °C	0.75	0.75	0.75	0.75	V
Maximum Instantaneous reverse current at rated DC blocking voltage (per leg)	I_R	T_j = 25 °C T_j = 100 °C T_j = 150 °C	1 10 30	1 10 30	1 10 30	1 10 30	mA
Thermal characteristics							
Thermal resistance, junction - case (per leg)	$R_{\Theta JC}$		0.50	0.50	0.50	0.50	°C/W

Figure .1- Typical Forward Characteristics

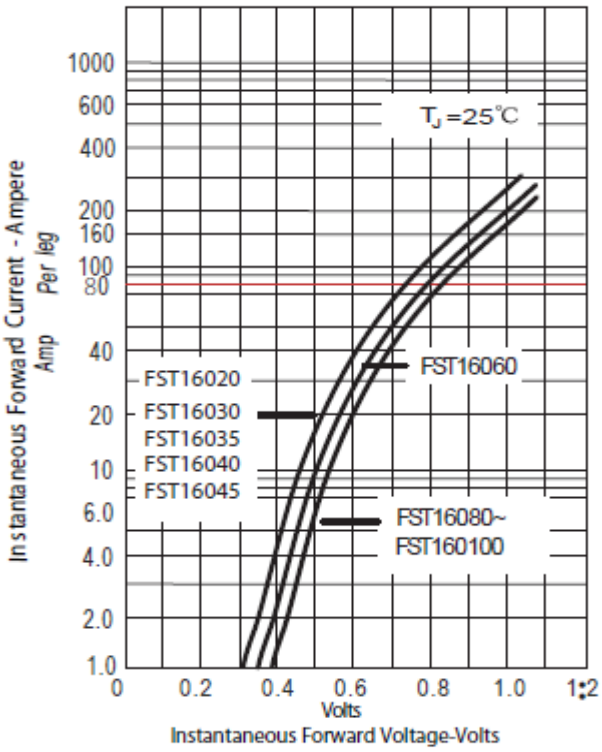


Figure .2- Forward Derating Curve

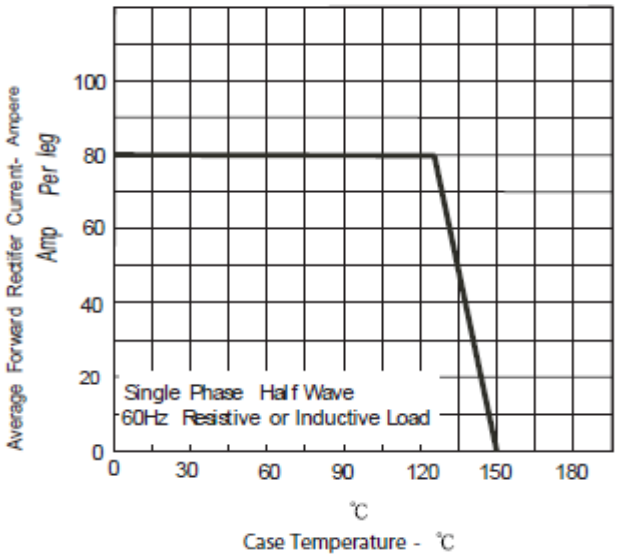


Figure.3-Peak Forward Surge Current

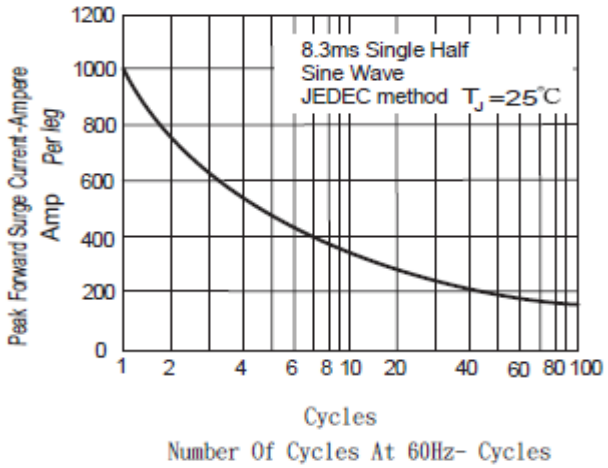
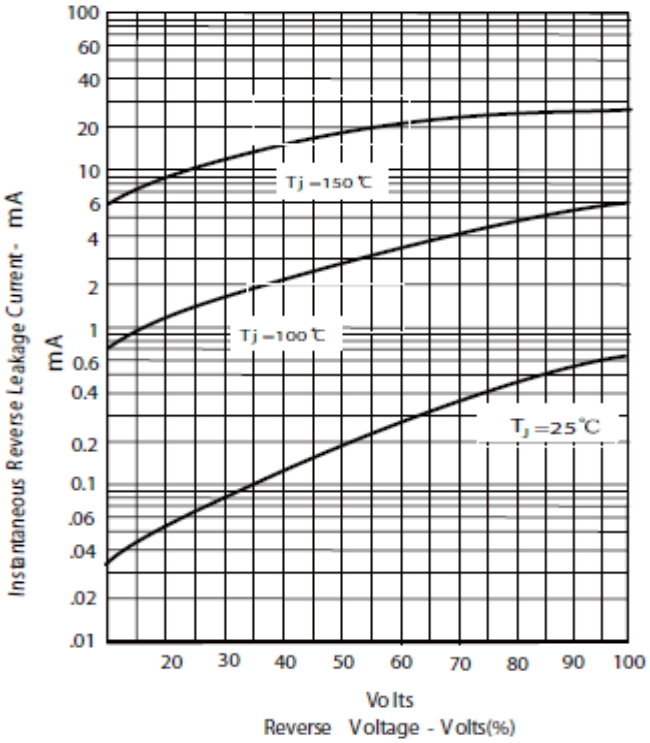
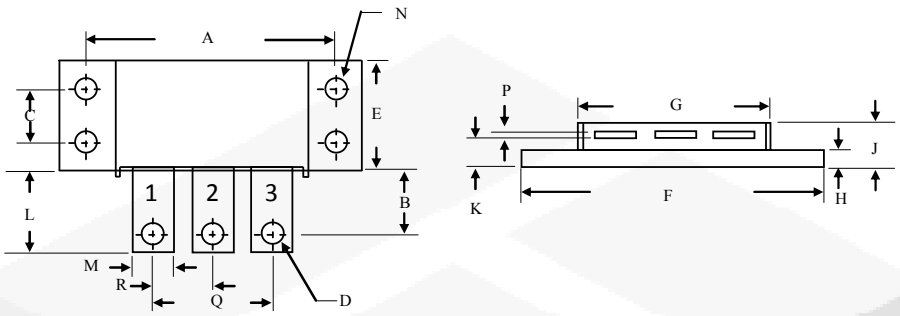


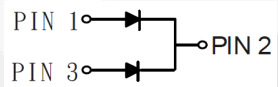
Figure .4- Typical Reverse Characteristics



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