

Silicon Power Schottky Diode

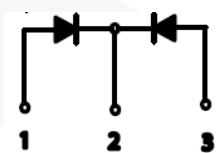
$V_{RRM} = 45 \text{ V} - 100 \text{ V}$

$I_{F(AV)} = 80 \text{ A}$

Features

- High Surge Capability
- Types from 45 V to 100V V_{RRM}
- Not ESD Sensitive

D61-3M Package



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

Parameter	Symbol	Conditions	FST8345M	FST8360M	FST8380M	FST83100M	Unit
Repetitive peak reverse voltage	V_{RRM}		45	60	80	100	V
RMS reverse voltage	V_{RMS}		32	42	56	70	V
DC blocking voltage	V_{DC}		45	60	80	100	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	FST8345M	FST8360M	FST8380M	FST83100M	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 125^\circ\text{C}$	80	80	80	80	A
Peak forward surge current (per leg)	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	600	600	600	600	A
Maximum instantaneous forward voltage (per leg)	V_F	$I_{FM} = 40 \text{ A}$, $T_j = 25^\circ\text{C}$	0.72	0.78	0.84	0.84	V
Maximum Instantaneous reverse current at rated DC blocking voltage (per leg)	I_R	$T_j = 25^\circ\text{C}$	1	1	1	1	mA
		$T_j = 100^\circ\text{C}$	10	10	10	10	
		$T_j = 150^\circ\text{C}$	30	30	30	30	

Thermal characteristics

Thermal resistance, junction - case (per leg)	$R_{\theta JC}$		1.10	1.10	1.10	1.10	$^\circ\text{C/W}$
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Figure .1- Typical Forward Characteristics

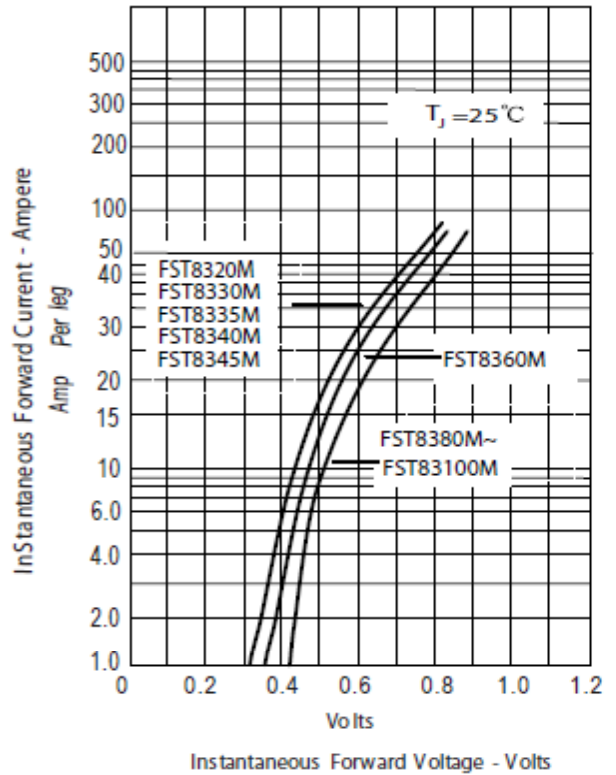


Figure .2- Forward Derating Curve

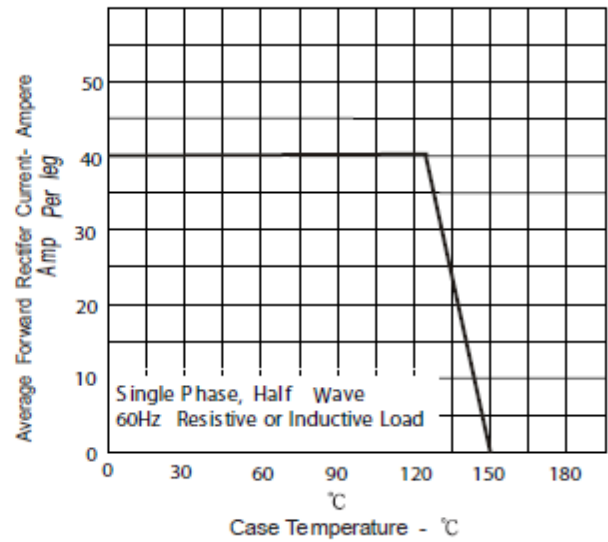


Figure.3-Peak Forward Surge Current

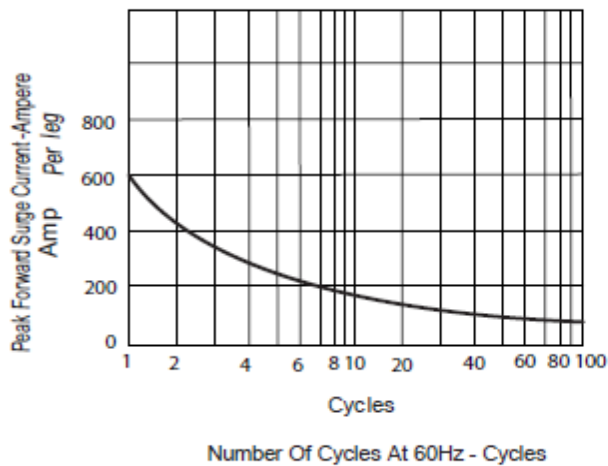
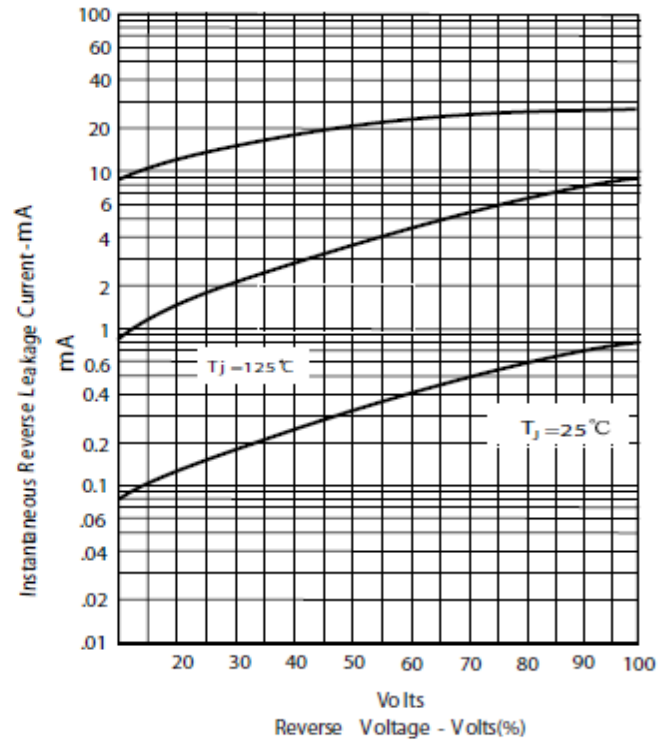
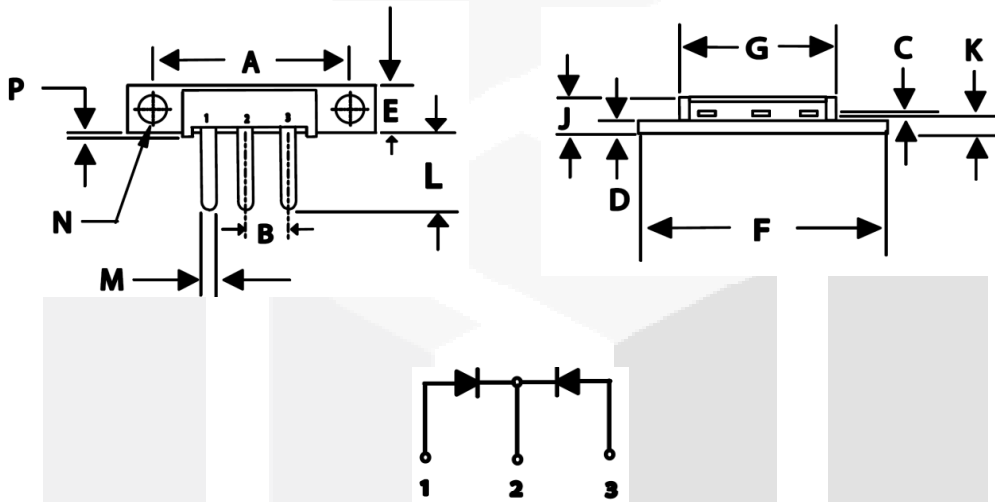


Figure .4- Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS					
DIM	IN CHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.180	1.195	29.97	30.35	
B	.200	NOM	5.08	NOM	2PL
C	.027	.037	0.69	0.94	
D	.088	.098	2.24	2.49	
E	.350	.370	8.89	9.40	
F	1.490	1.510	37.85	38.35	
G	.695	.715	17.65	18.16	
J	.24	.26	6.1	6.6	
K	.115	.135	2.92	3.43	
L	.457	.477	11.61	12.12	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	Ø
P	.015	.025	0.38	0.64	