

Silicon Power Schottky Diode

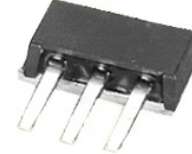
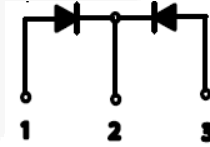
$V_{RRM} = 20\text{ V} - 40\text{ V}$

$I_F = 80\text{ A}$

Features

- High Surge Capability
- Types from 20 V to 40V V_{RRM}
- Types up to 100V V_{RRM}

D61-3SM Package



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

Parameter	Symbol	Conditions	FST8320SM	FST78330SM	FST8335SM	FST8340SM	Unit
Repetitive peak reverse voltage	V_{RRM}		20	30	35	40	V
RMS reverse voltage	V_{RMS}		14	21	35	28	V
DC blocking voltage	V_{DC}		20	30	35	40	V
Continuous forward current	I_F	$T_C \leq 110\text{ }^\circ\text{C}$	80	80	80	80	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	800	800	800	800	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	-40 to 175	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	-40 to 175	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	FST8320SM	FST8330SM	FST8335SM	FST78340SM	Unit
Diode forward voltage	V_F	$I_F = 80\text{ A}$, $T_j = 25\text{ }^\circ\text{C}$	0.65	0.65	0.65	0.65	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$ $V_R = 20\text{ V}$, $T_j = 125\text{ }^\circ\text{C}$	1.5	1.5	1.5	1.5	mA
			500	500	500	500	

Thermal characteristics

Parameter	Symbol	Conditions	FST8320SM	FST8330SM	FST8335SM	FST78340SM	Unit
Thermal resistance, junction - case	R_{thJC}		1.2	1.2	1.2	1.2	$^\circ\text{C/W}$

Figure .1-Typical Forward Charac teristics

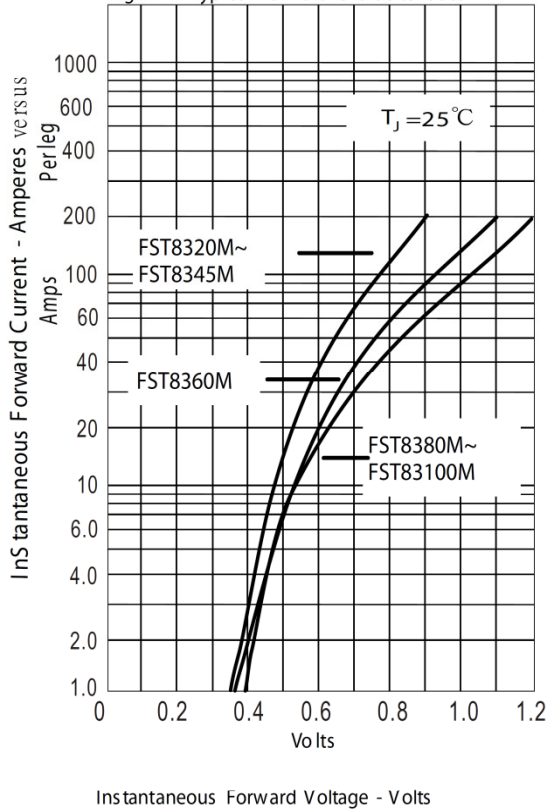
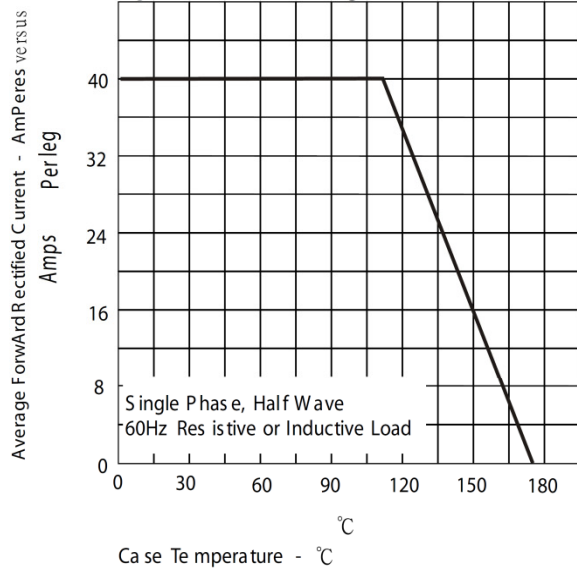


Figure .2- Forward Derating Curve



Instantaneous Forward Voltage - Volts

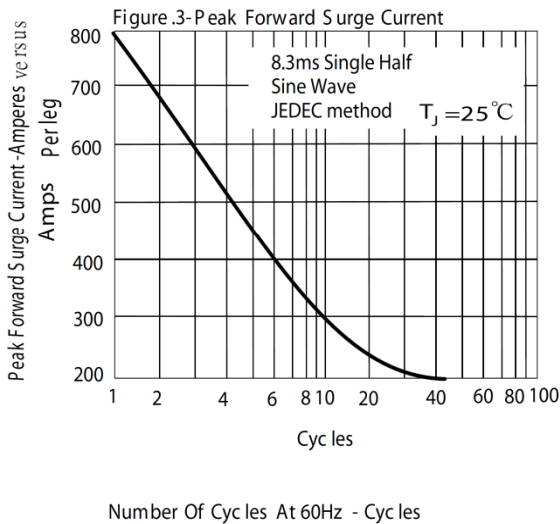
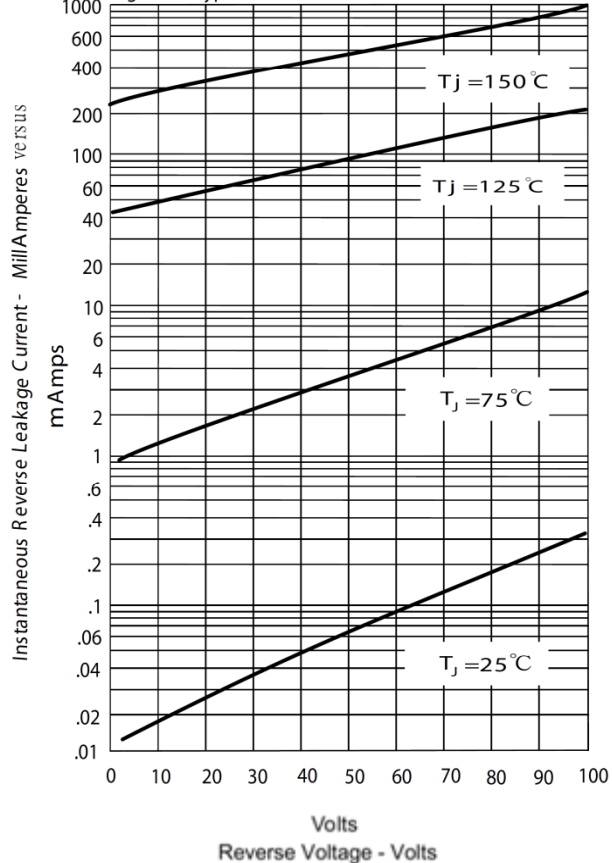


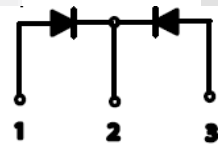
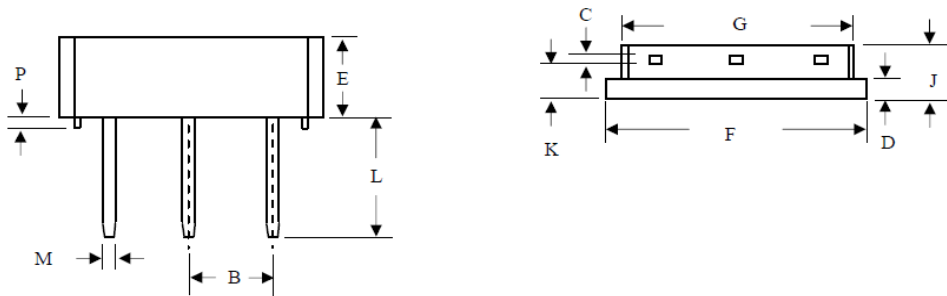
Figure .4-Typical Revers e Charac teristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

MINI MODE D61 - 3SM



	Inches		Millimeters	
	Min	Max	Min	Max
B	0.200	NOM	5.08	NOM
C	0.027	0.037	0.69	0.94
D	0.088	0.098	2.24	2.49
E	0.350	0.370	8.89	9.40
F	0.777	0.797	19.74	20.24
G	0.695	0.715	17.65	18.16
J	0.240	0.260	6.10	6.60
K	0.115	0.135	2.92	3.43
L	0.457	0.477	11.61	12.12
M	0.065	0.085	1.65	2.16
P	0.015	0.025	0.38	0.64