

Silicon Power Schottky Diode

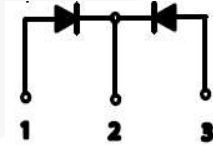
$V_{RRM} = 20$

$I_F = 80$ 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	FST78340SM	Unit
Repetitive peak reverse voltage	V_{RRM}		20	30	35		
RMS reverse voltage	V_{RMS}		14	21	35		
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	$^\circ\text{C}$

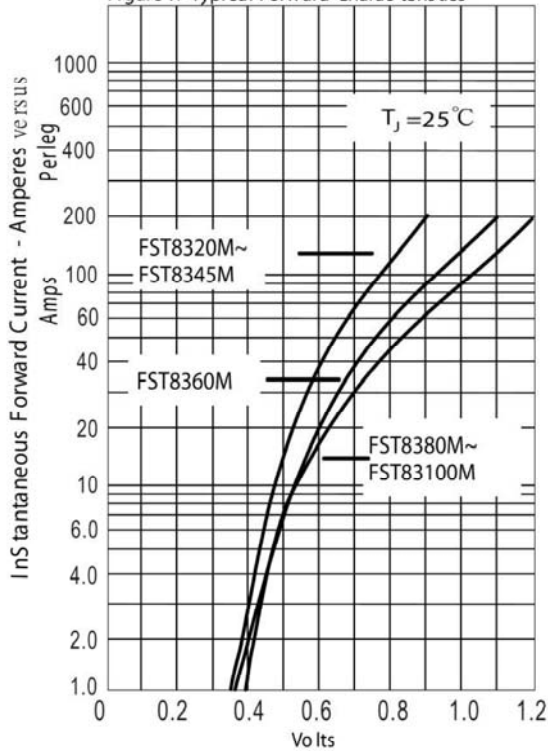
Electrical characteristics, at $T_j = 25\text{ }^\circ\text{C}$, unless otherwise specified

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

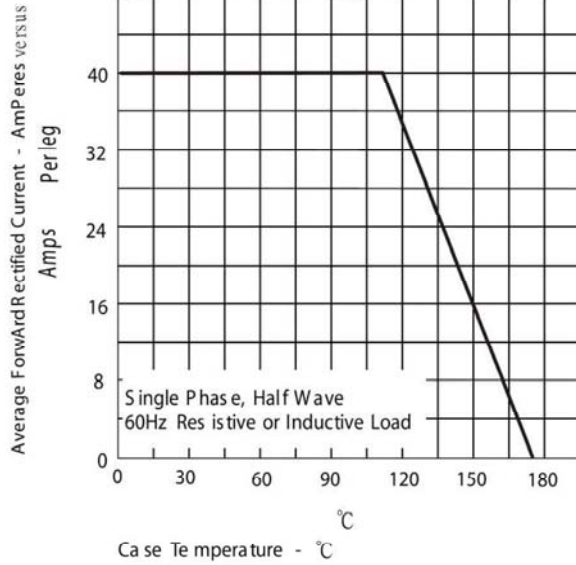
Parameter	Symbol	Conditions	FST8320SM	FST8330SM	FST8335SM	FST78340SM	Unit
Thermal resistance, junction - case	R_{thJC}		1.2	1.2	1.2	1.2	$^\circ\text{C/W}$

Figure .1-Typical Forward Charac teristics



Instantaneous Forward Voltage - Volts

Figure .2- Forward Derating Curve



Case Temperature - °C

Figure .4-Typical Reverse Charac teristics

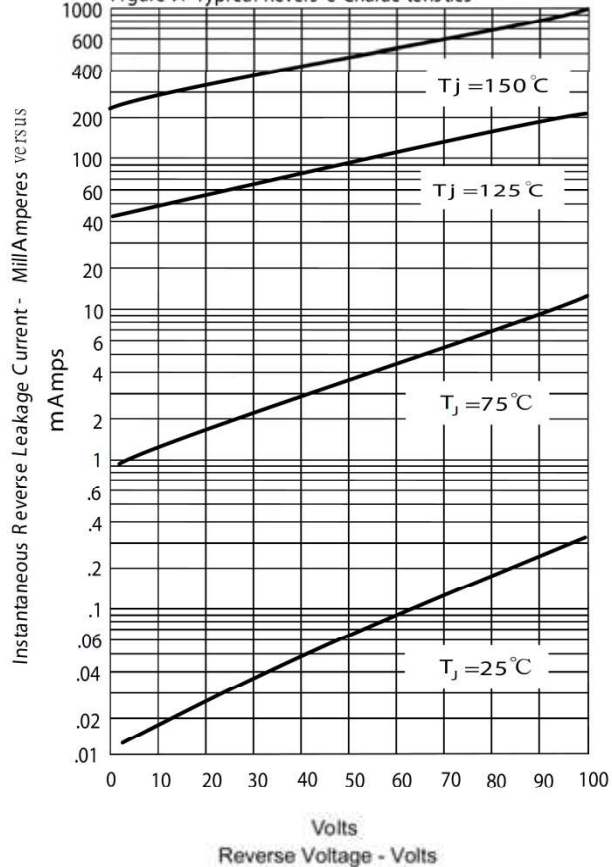
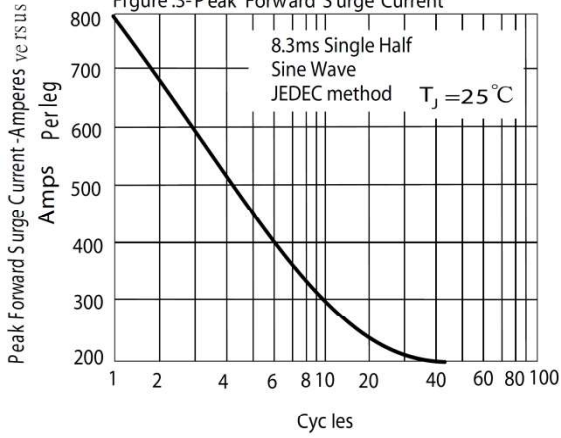


Figure.3-Peak Forward Surge Current



Number Of Cyc les At 60Hz - Cyc les