

Silicon Power Schottky Diode

$V_{RRM} = 20\text{ V} - 100\text{ V}$
 $I_F = 120\text{ A}$

Features

- High Surge Capability
- Types up to 100V V_{RRM}
- Isolated to Plate

TO-249AB Package



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

Parameter	Symbol	Conditions	FST12020	FST12030	FST12035	FST12040	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
Continuous forward current	I_F	$T_C \leq 100\text{ }^\circ\text{C}$	120	120	120	120	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	1200	1200	1200	1200	A
Operating temperature	T_j		-40 to 125	-40 to 125	-40 to 125	-40 to 125	$^\circ\text{C}$
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	FST12020	FST12030	FST12035	FST12040	Unit
Diode forward voltage	V_F	$I_F = 120\text{ A}$, $T_j = 25\text{ }^\circ\text{C}$	0.65	0.65	0.65	0.65	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$ $V_R = 20\text{ V}$, $T_j = 125\text{ }^\circ\text{C}$	2 600	2 600	2 600	2 600	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		1.0	1.0	1.0	1.0	$^\circ\text{C/W}$
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Figure .1-Typical Forward Characteristics

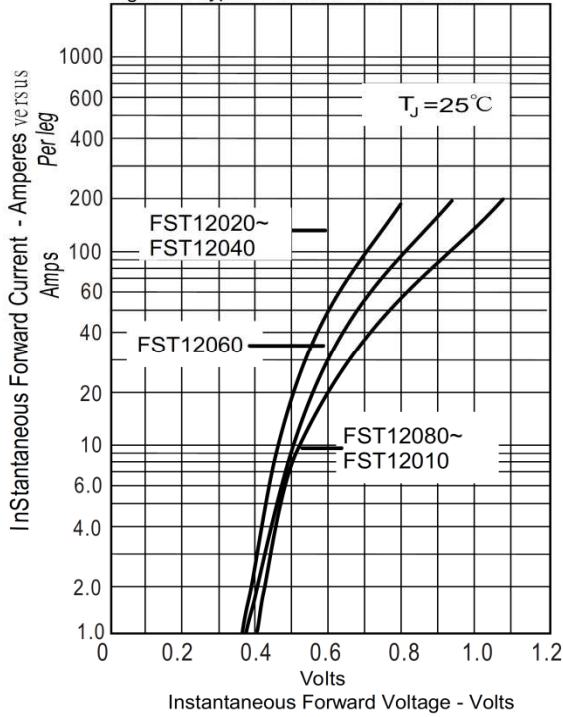


Figure .2-Forward Derating Curve

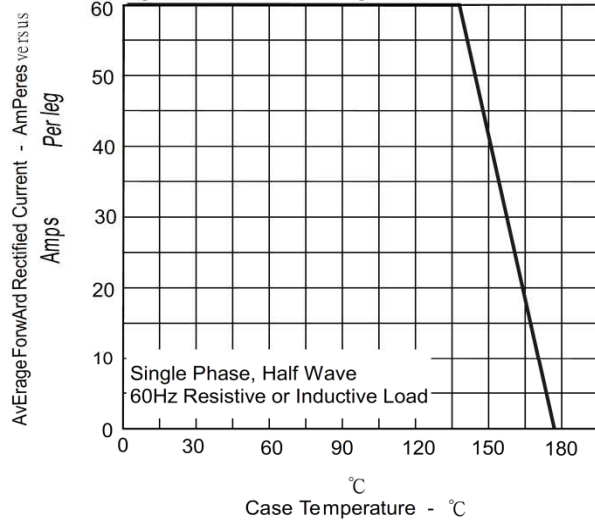


Figure.3- Peak Forward Surge Current

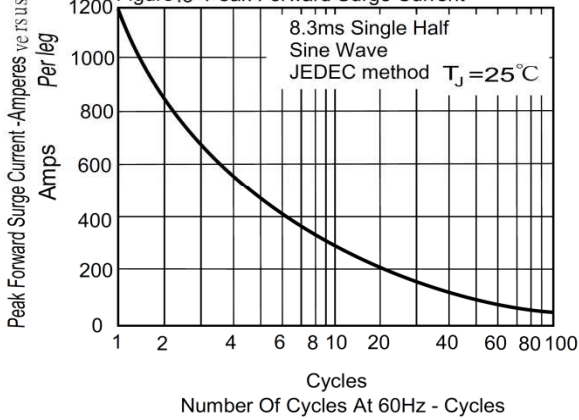


Figure .4-Typical Reverse Characteristics

