

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 $T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	FST12045	FST12060	FST12080	FST120100	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
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	120	120	120	120	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	1200	1200	1200	1200	A
Operating temperature	T_j		-40 to 125	-40 to 125	-40 to 125	-40 to 125	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°C

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

Parameter	Symbol	Conditions	FST12045	FST12060	FST12080	FST120100	Unit
Diode forward voltage	V_F		0.65	0.75	0.84	0.84	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ °C}$	2	2	2	2	mA
		$V_R = 20\text{ V}$, $T_j = 125\text{ °C}$	600	600	600	600	

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		1.0	1.0	1.0	1.0	°C/W
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Figure .1-Typical Forward Characteristics

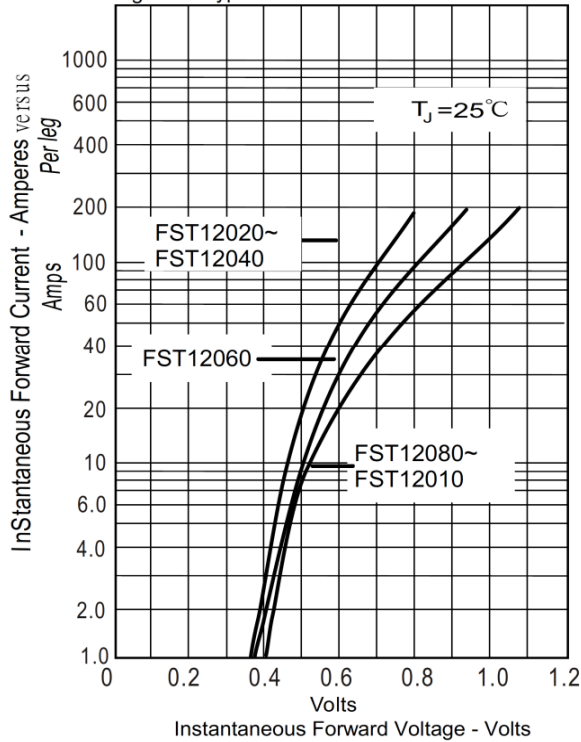


Figure .2-Forward Derating Curve

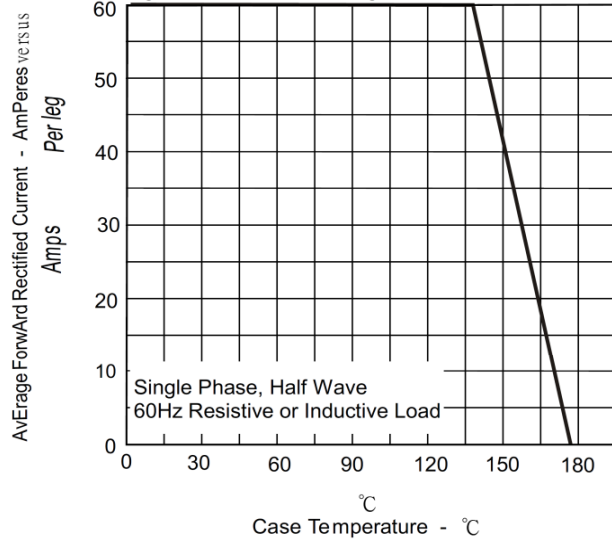


Figure .3- Peak Forward Surge Current

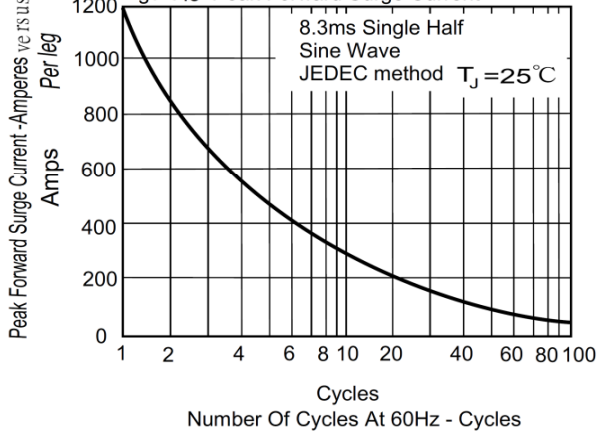


Figure .4- Typical Reverse Characteristics

