

## Silicon Power Schottky Diode

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

$I_F = 160\text{ A}$

### 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	FST16045	FST16060	FST16080	FST160100	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	$I_F$	$T_C \leq 100\text{ }^\circ\text{C}$	160	160	160	160	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	FST16045	FST16060	FST160380	FST160100	Unit
Diode forward voltage	$V_F$	$I_F = 160\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	0.75	0.8	0.88	0.88	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 10	1 10	1 10	1 10	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

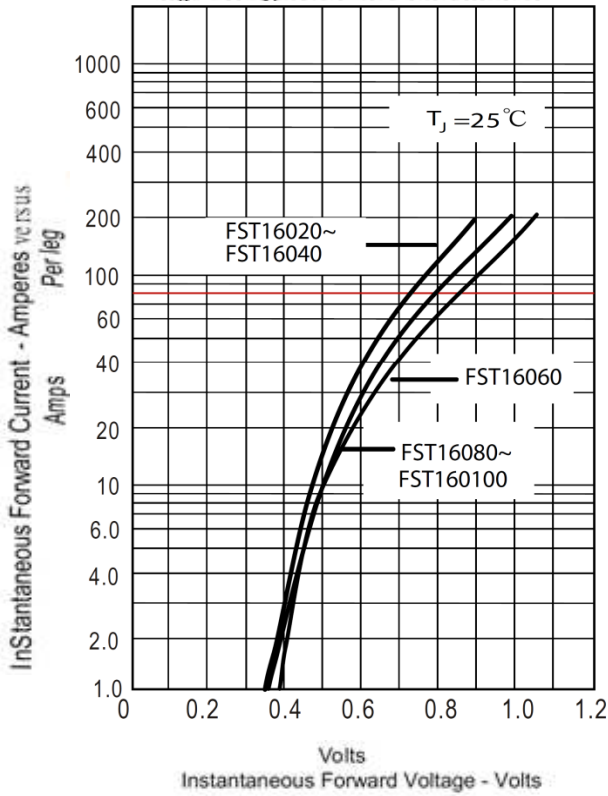


Figure 2-Forward Derating Curve

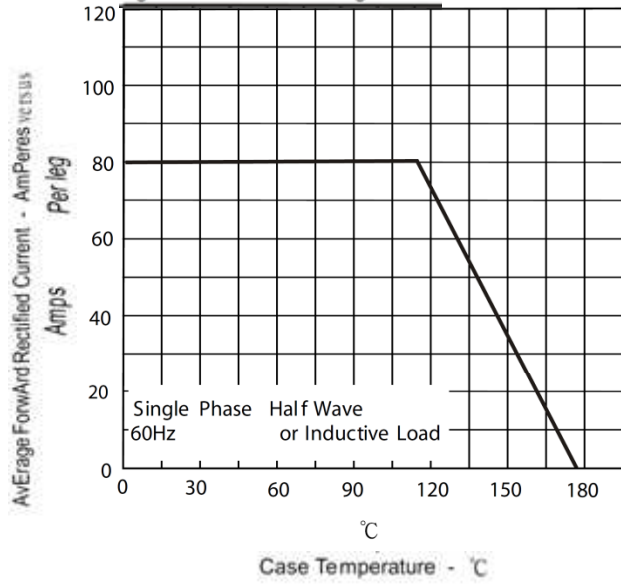


Figure 3- Peak Forward Surge Current

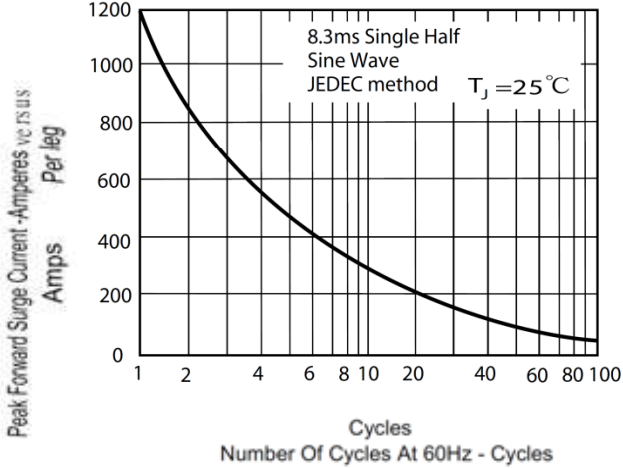


Figure 4-Typical Reverse Characteristics

