

**Silicon Power
 Schottky Diode**
 $V_{RRM} = 20\text{ V} - 45\text{ V}$
 $I_F = 200\text{ A}$
Features

- High Surge Capability
- Types up to 45 V V_{RRM}
- Isolated to Plate

TO-249AB Package

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

Parameter	Symbol	Conditions	FST20020	FST20035	FST20040	FST20045	Unit
Repetitive peak reverse voltage	V_{RRM}		20	35	40	45	V
RMS reverse voltage	V_{RMS}		14	25	28	32	V
DC blocking voltage	V_{DC}		20	35	40	45	V
Continuous forward current	I_F	$T_C \leq 126\text{ °C}$	200	200	200	200	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	1500	1500	1500	1500	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°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	FST20020	FST20035	FST20040	FST20045	Unit
Diode forward voltage	V_F	$I_F = 100\text{ A}$, $T_j = 25\text{ °C}$	0.7	0.7	0.7	0.7	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ °C}$ $V_R = 20\text{ V}$, $T_j = 125\text{ °C}$	4 600	4 600	4 600	4 600	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		1.0	1.0	1.0	1.0	°C/W
-------------------------------------	------------	--	-----	-----	-----	-----	------

Figure .1-Typical Forward Characteristics

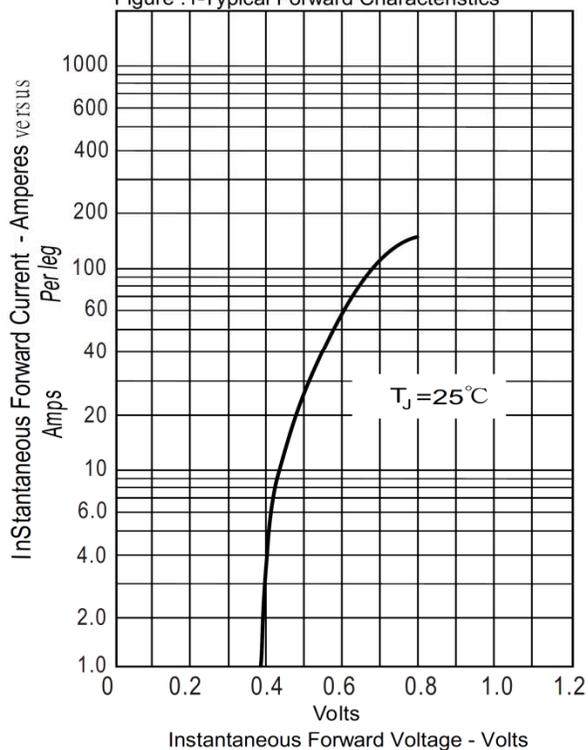


Figure .2-Forward Derating Curve

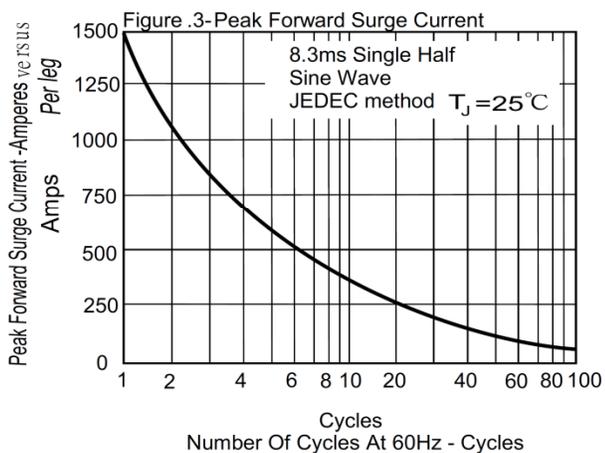
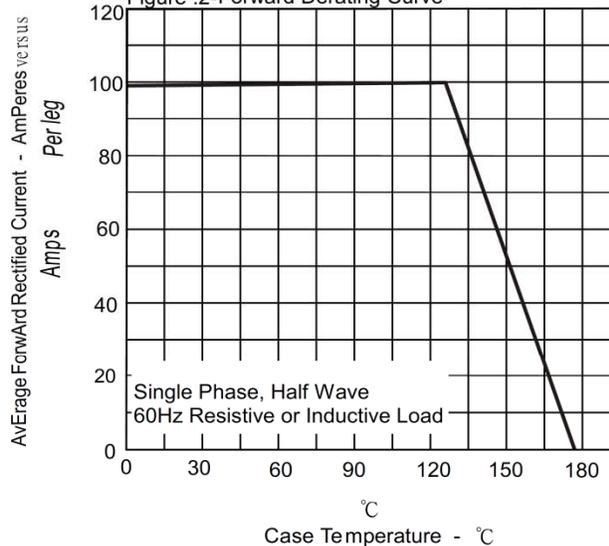


Figure .4-Typical Reverse Characteristics

