

Silicon Power Schottky Diode

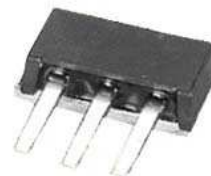
$V_{RRM} = 10\text{ V} - 100\text{ V}$

$I_F = 60\text{ A}$

Features

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

D61-3SM Package



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

Parameter	Symbol	Conditions	FST6310SM	FST6315SM	FST6320SM	FST6330SM	FST6335SM	Unit
Repetitive peak reverse voltage	V_{RRM}		10	15	20	30	35	V
RMS reverse voltage	V_{RMS}		7	10	14	21	25	V
DC blocking voltage	V_{DC}		10	15	20	30	35	V
Continuous forward	I_F	$T_C \leq 105\text{ °C}$	60	60	60	60	60	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	600	600	600	600	600	A
Operating temperature	T_j		-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	°C
Storage temperature	T_{stg}		-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	°C

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

Parameter	Symbol	Conditions	FST6310SM	FST6315SM	FST6320SM	FST6330SM	FST6335SM	Unit
Diode forward voltage	V_F	$I_F = 60\text{ A}$, $T_j = 25\text{ °C}$	0.55	0.55	0.55	0.55	0.55	V
Reverse current	I_R	$V_R = 10\text{ V}$, $T_j = 25\text{ °C}$	3	3	3	3	3	mA
		$V_R = 10\text{ V}$, $T_j = 125\text{ °C}$	500	500	500	500	500	

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		1.2	1.2	1.2	1.2	1.2	°C/W
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Figure .1-Typical Forward Characteristics

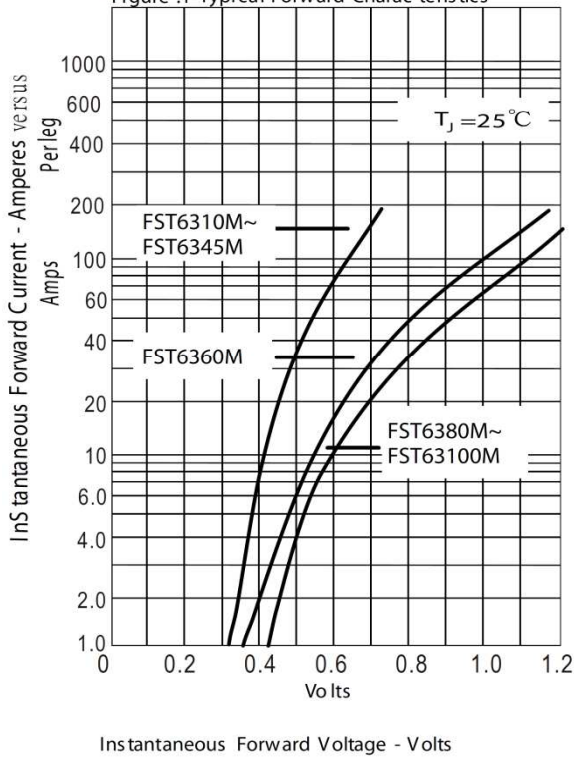


Figure .2- Forward Derating Curve

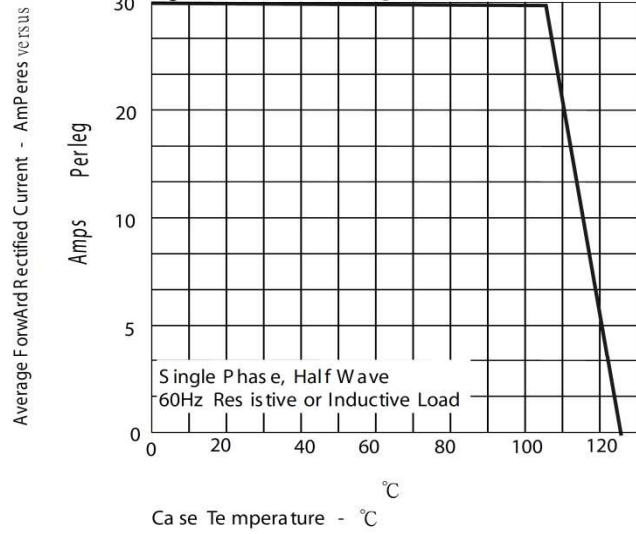


Figure .3- Peak Forward Surge Current

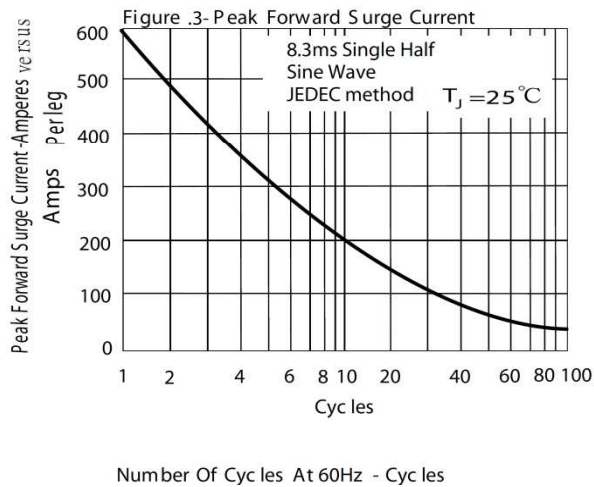


Figure .4- Typical Reverse Characteristics

