

Silicon Standard Recovery Diode

$V_{RRM} = 100 \text{ V} - 600 \text{ V}$

$I_F = 300 \text{ A}$

Features

- High Surge Capability
- Types up to 600 V V_{RRM}

DO-9 Package



Maximum ratings, at $T_j = 25^\circ\text{C}$, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	S300B (R)	S300D (R)	S300E (R)	S300G (R)	S300J (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		100	200	300	400	600	V
RMS reverse voltage	V_{RMS}		70	140	212	280	420	V
DC blocking voltage	V_{DC}		100	200	300	400	600	V
Continuous forward	I_F	$T_C \leq 130^\circ\text{C}$	300	300	300	300	300	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}$, $t_p = 8.3 \text{ ms}$	6850	6850	6850	6850	6850	A
Operating temperature	T_j		-60 to 200	-60 to 200	-60 to 200	-60 to 200	-60 to 200	$^\circ\text{C}$
Storage temperature	T_{stg}		-60 to 200	-60 to 200	-60 to 200	-60 to 200	-60 to 200	$^\circ\text{C}$

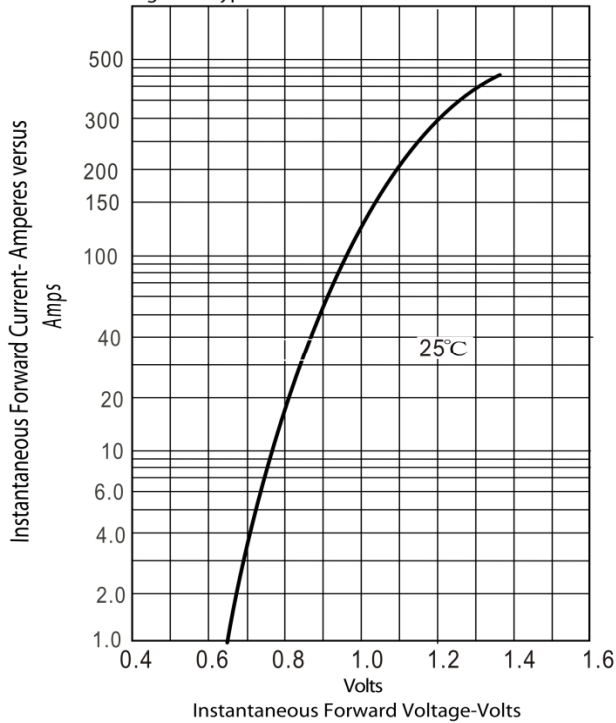
Electrical characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	S300B (R)	S300D (R)	S300E (R)	S300G (R)	S300J (R)	Unit
Diode forward voltage	V_F	$I_F = 300 \text{ A}$, $T_j = 25^\circ\text{C}$	1.2	1.2	1.2	1.2	1.2	V
Reverse current	I_R	$V_R = 100 \text{ V}$, $T_j = 25^\circ\text{C}$	10	10	10	10	10	μA
		$V_R = 100 \text{ V}$, $T_j = 175^\circ\text{C}$	12	12	12	12	12	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.16	0.16	0.16	0.16	0.16	$^\circ\text{C/W}$
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Figure.1-Typical Forward Characteristics



Figur.2-Forward Derating Curve

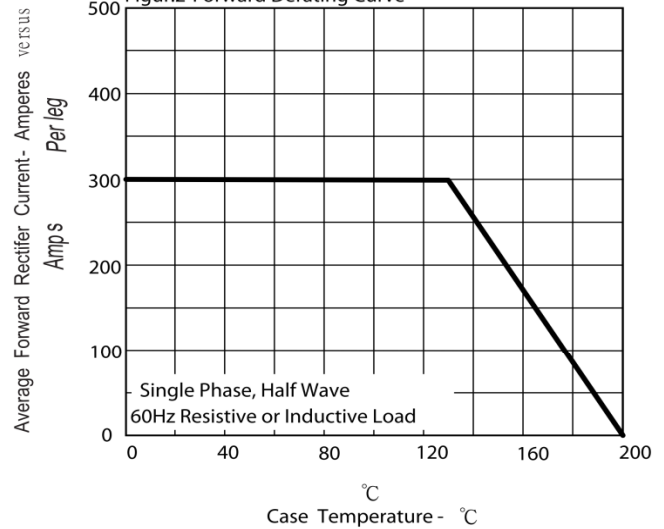
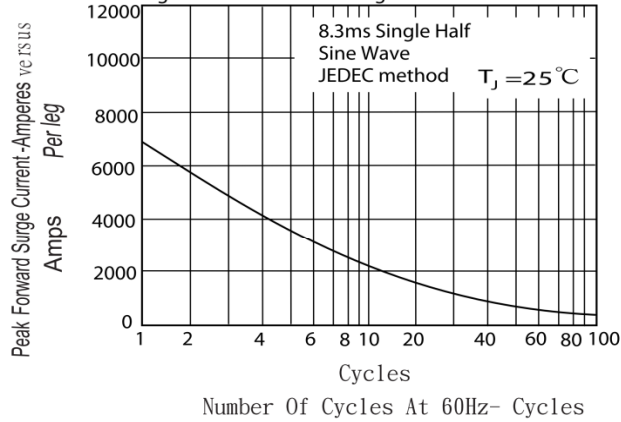


Figure.3-Peak Forward Surge Current



Figur.4-Typical Reverse Characteristics

