

Silicon Standard Recovery Diode

$$V_{RRM} = 1600 \text{ V}$$

$$I_F = 300 \text{ A}$$

Features

- High Surge Capability
- Types up to 1600 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	S300Y (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		1600	V
RMS reverse voltage	V_{RMS}		1131	V
DC blocking voltage	V_{DC}		1600	V
Continuous forward current	I_F	$T_C \leq 110^\circ\text{C}$	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	A
Operating temperature	T_j		-60 to 200	$^\circ\text{C}$
Storage temperature	T_{stg}		-60 to 200	$^\circ\text{C}$

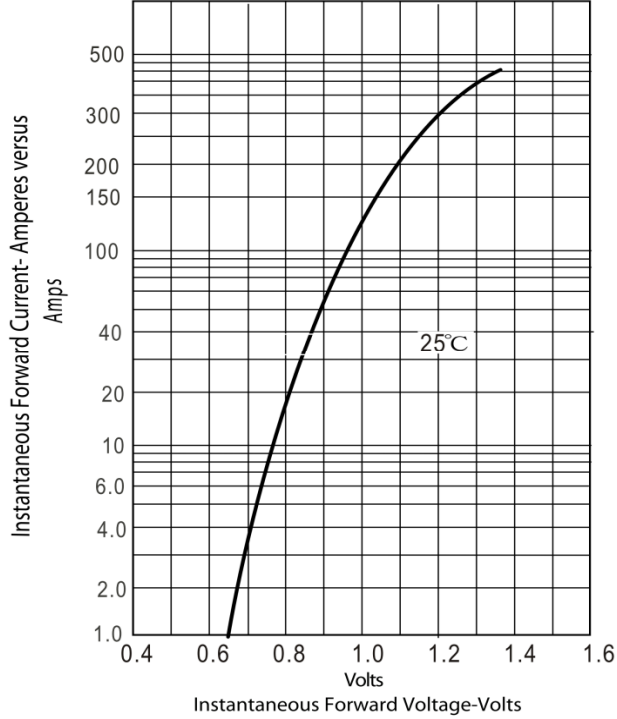
Electrical characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	S300Y (R)	Unit
Diode forward voltage	V_F	$I_F = 300 \text{ A}$, $T_j = 25^\circ\text{C}$	1.2	V
Reverse current	I_R	$V_R = 100 \text{ V}$, $T_j = 25^\circ\text{C}$	10	μA
		$V_R = 100 \text{ V}$, $T_j = 175^\circ\text{C}$	12	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.16	$^\circ\text{C/W}$
-------------------------------------	------------	--	------	--------------------

Figure.1-Typical Forward Characteristics



Figur.2-Forward Derating Curve

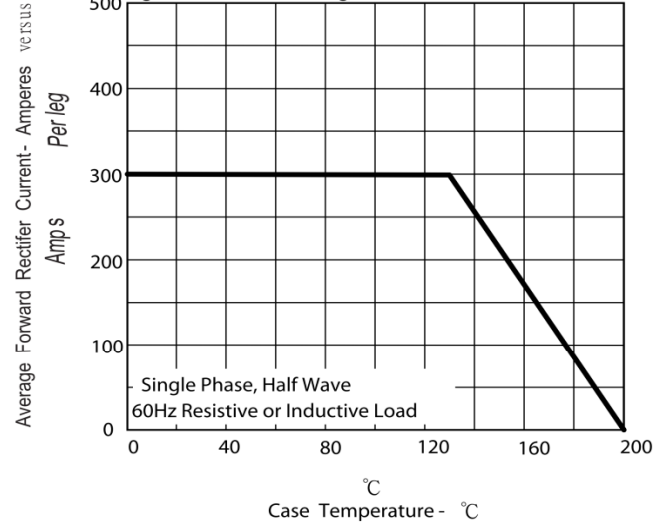
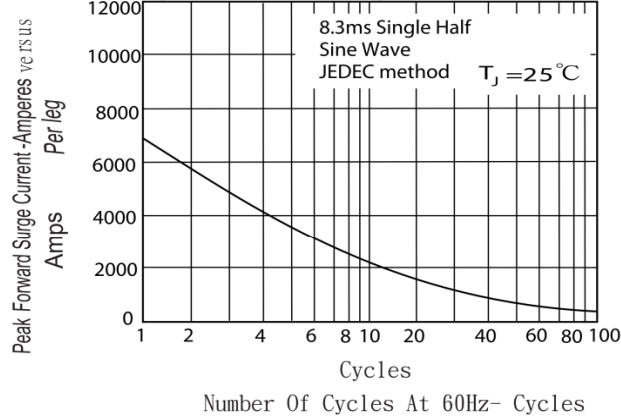


Figure.3-Peak Forward Surge Current



Figur.4-Typical Reverse Characteristics

