

## Silicon Standard Recovery Diode

$V_{RRM} = 1600\text{ V} - 2000\text{ V}$   
 $I_F = 300\text{ A}$

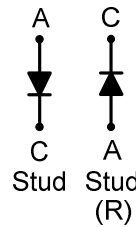
### Features

- High Surge Capability
- Types up to 2000 V  $V_{RRM}$

DO-9 Package

### Note:

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.



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

Parameter	Symbol	Conditions	S300Y (R)	S300Z (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		1600	2000	V
RMS reverse voltage	$V_{RMS}$		1131	1414	V
DC blocking voltage	$V_{DC}$		1600	2000	V
Continuous forward current	$I_F$	$T_C \leq 130\text{ }^\circ\text{C}$	300	300	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	6850	6850	A
Operating temperature	$T_j$		-60 to 180	-60 to 180	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-60 to 200	-60 to 200	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	S300Y (R)	S300Z (R)	Unit
Diode forward voltage	$V_F$	$I_F = 300\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	1.2	1.2	V
Reverse current	$I_R$	$V_R = 1600\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$	10	10	$\mu\text{A}$
		$V_R = 1600\text{ V}$ , $T_j = 175\text{ }^\circ\text{C}$	12	12	mA

### Thermal characteristics

Parameter	Symbol	Conditions	S300Y (R)	S300Z (R)	Unit
Thermal resistance, junction - case	$R_{thJC}$		0.16	0.16	$^\circ\text{C/W}$

Figure.1-Typical Forward Characteristics

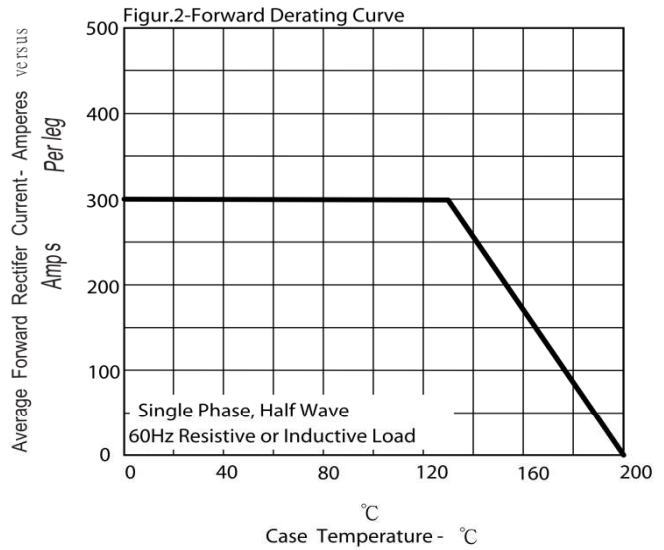
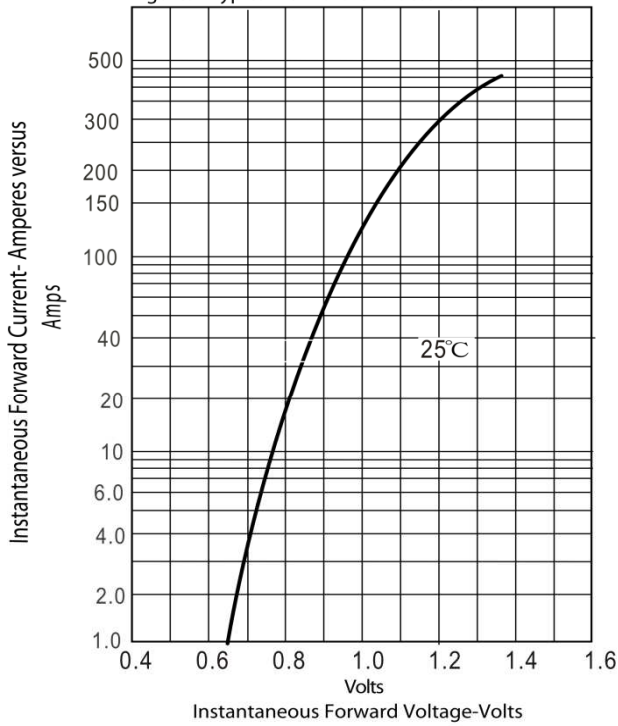


Figure.3-Peak Forward Surge Current

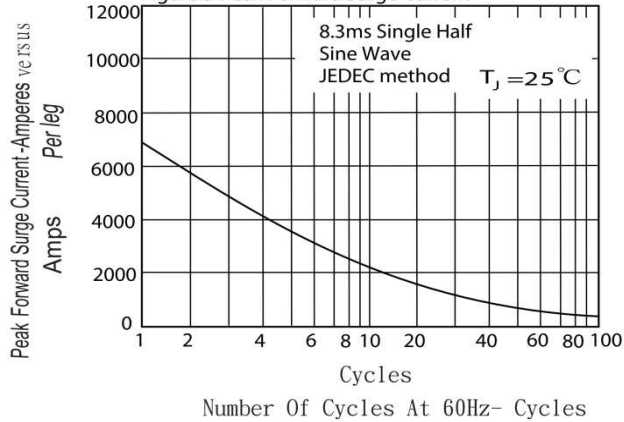


Figure.4-Typical Reverse Characteristics

