

Silicon Standard Recovery Diode

$V_{RRM} = 600\text{ V} - 1200\text{ V}$
 $I_F = 320\text{ A}$

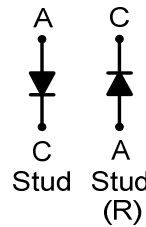
Features

- High Surge Capability
- Types up to 1200 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 $T_j = 25\text{ °C}$, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	S320J (R)	S320K (R)	S320M (R)	S320Q (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	1200	V
RMS reverse voltage	V_{RMS}		420	566	707	848	V
DC blocking voltage	V_{DC}		600	800	1000	1200	V
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	320	320	320	320	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	4700	4700	4700	4700	A
Operating temperature	T_j		-60 to 180	-60 to 180	-60 to 180	-60 to 180	°C
Storage temperature	T_{stg}		-60 to 200	-60 to 200	-60 to 200	-60 to 200	°C

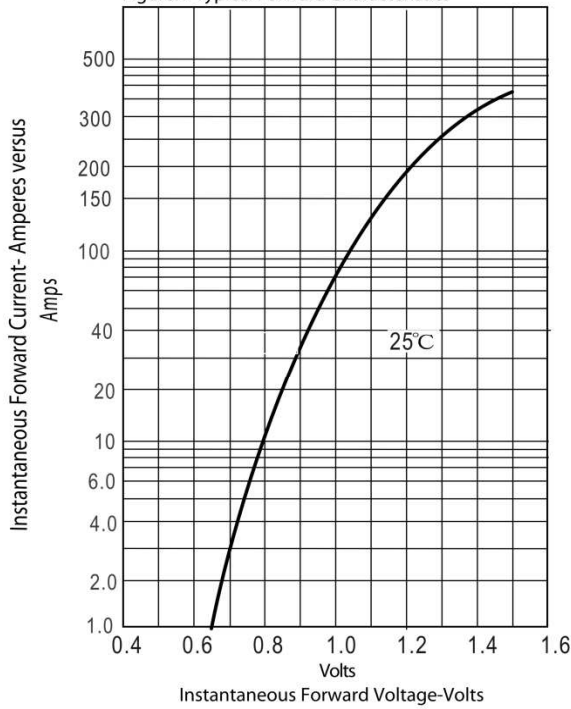
Electrical characteristics, at $T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	S320J (R)	S320K (R)	S320M (R)	S320Q (R)	Unit
Diode forward voltage	V_F	$I_F = 300\text{ A}$, $T_j = 25\text{ °C}$	1.2	1.2	1.2	1.2	V
Reverse current	I_R	$V_R = 600\text{ V}$, $T_j = 25\text{ °C}$	10	10	10	10	μA
		$V_R = 600\text{ V}$, $T_j = 175\text{ °C}$	12	12	12	12	mA

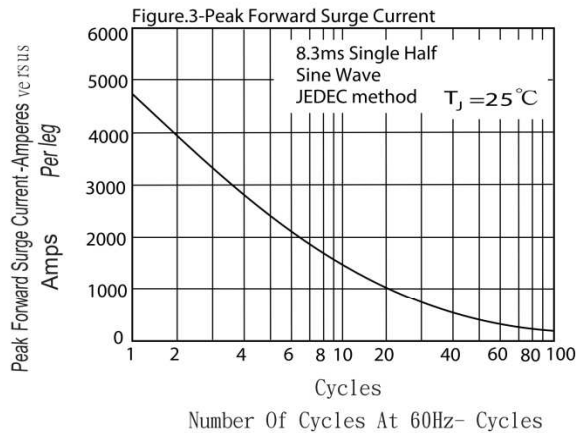
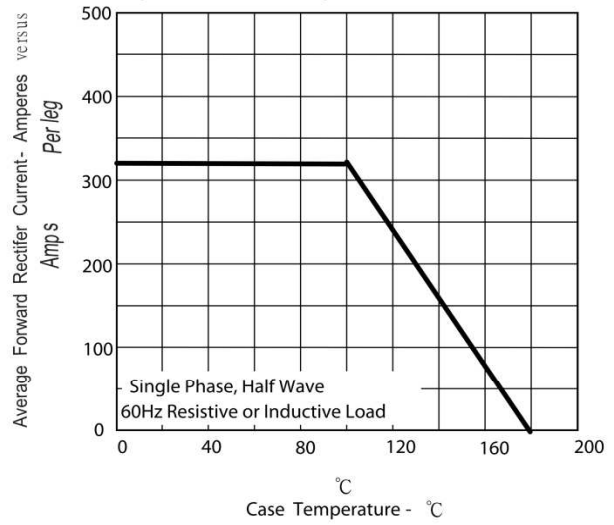
Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.16	0.16	0.16	0.16	°C/W
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Figure.1-Typical Forward Characteristics



Figur.2-Forward Derating Curve



Figur.4-Typical Reverse Characteristics

