

**Silicon Standard
Recovery Diode**

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

$I_F = 380\text{ A}$

Features

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

DO-9 Package



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

Parameter	Symbol	Conditions	S380Y (R)	S380Z (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	$T_C \leq 100\text{ °C}$	380	380	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	6335	6335	A
Operating temperature	T_j		-60 to 180	-60 to 180	°C
Storage temperature	T_{stg}		-60 to 200	-60 to 200	°C

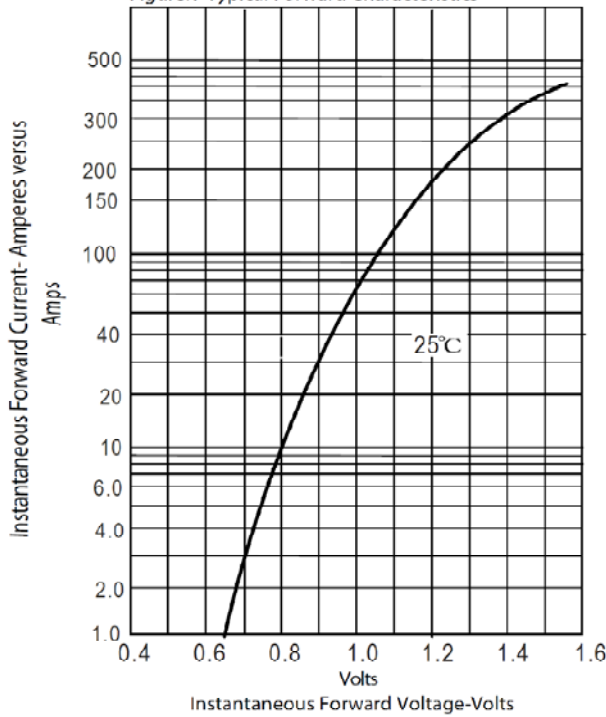
Electrical characteristics, at $T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	S380Y (R)	S380Z (R)	Unit
Diode forward voltage	V_F	$I_F = 380\text{ A}$, $T_j = 25\text{ °C}$	1.2	1.2	V
Reverse current	I_R	$V_R = 1600\text{ V}$, $T_j = 25\text{ °C}$	10	10	μA
		$V_R = 1600\text{ V}$, $T_j = 175\text{ °C}$	12	12	mA

Thermal characteristics

Parameter	Symbol	Conditions	S380Y (R)	S380Z (R)	Unit
Thermal resistance, junction - case	R_{thJC}		0.16	0.16	°C/W

Figure.1-Typical Forward Characteristics



Figur.2-Forward Derating Curve

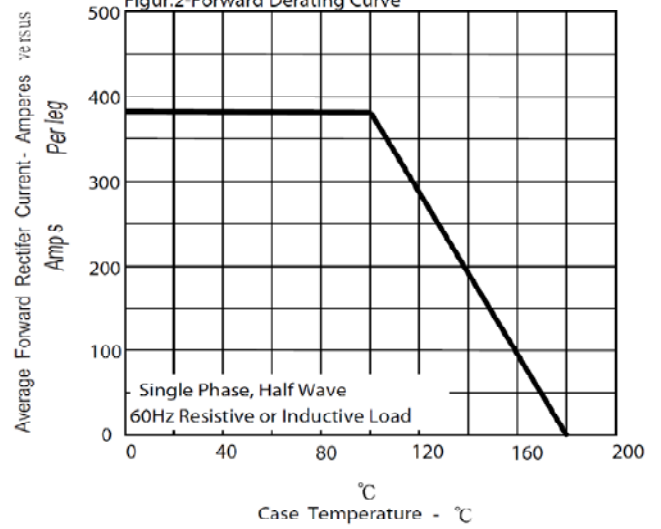
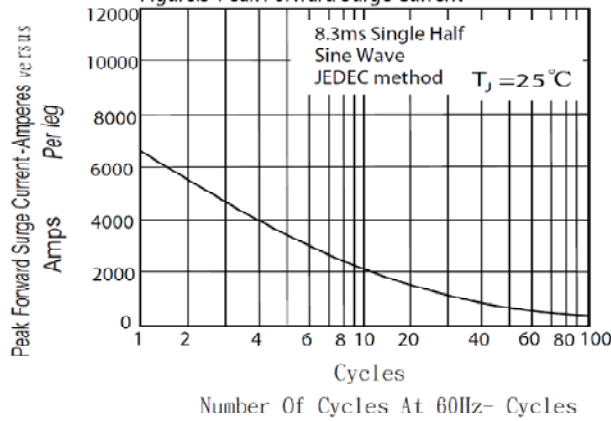


Figure.3-Peak Forward Surge Current



Figur.4-Typical Reverse Characteristics

