



Silicon Standard Recovery Diode

S380Y thru S380ZR

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

$I_F = 380\text{ A}$

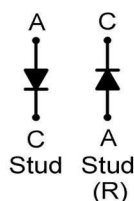
Features

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

DO-9 Package

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	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

Thermal resistance, junction - case	R_{thJC}		0.16	0.16	°C/W
-------------------------------------	------------	--	------	------	------



