

## Silicon Standard Recovery Diode

$V_{RRM} = 100\text{ V} - 1600\text{ V}$

$I_F = 40\text{ A}$

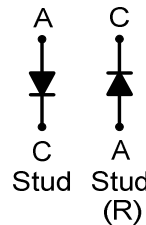
### Features

- High Surge Capability
- Types up to 1600 V  $V_{RRM}$

DO-5 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	S40B (R)	S40D (R)	S40G (R)	S40J (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		100	200	400	600	V
RMS reverse voltage	$V_{RMS}$		70	140	280	420	V
DC blocking voltage	$V_{DC}$		100	200	400	600	V
Continuous forward current	$I_F$	$T_C \leq 140\text{ }^\circ\text{C}$	40	40	40	40	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	595	595	595	595	A
Operating temperature	$T_j$		-65 to 190	-65 to 190	-65 to 190	-65 to 190	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-65 to 190	-65 to 190	-65 to 190	-65 to 190	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	S40B (R)	S40D (R)	S40G (R)	S40J (R)	Unit
Diode forward voltage	$V_F$	$I_F = 40\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	1.1	V
Reverse current	$I_R$	$V_R = 100\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$	10	10	10	10	$\mu\text{A}$
		$V_R = 100\text{ V}$ , $T_j = 190\text{ }^\circ\text{C}$	15	15	15	9	mA

### Thermal characteristics

Thermal resistance, junction - case	$R_{thJC}$		1.25	1.25	1.25	1.25	$^\circ\text{C/W}$
-------------------------------------	------------	--	------	------	------	------	--------------------

Figure .1-Typical Forward Characteristics

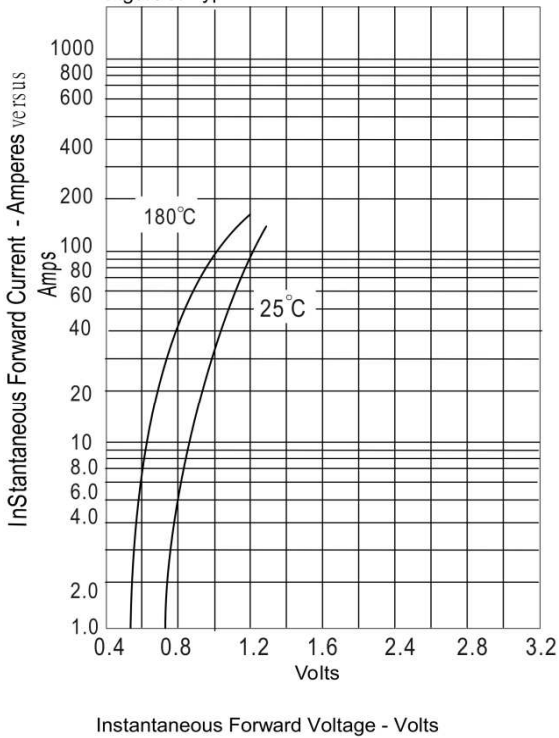


Figure .2- Forward Derating Curve

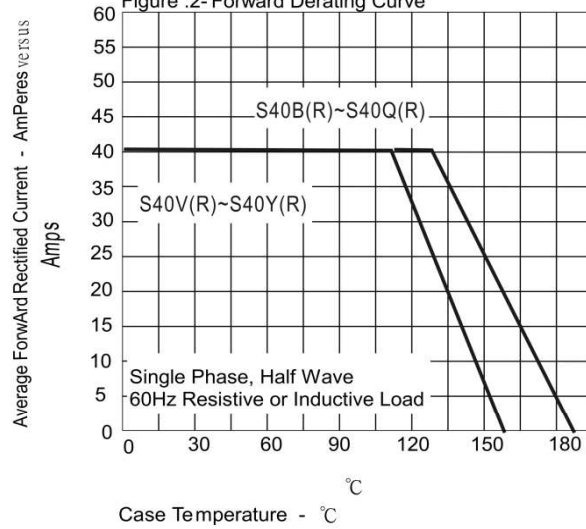


Figure .4- Typical Reverse Characteristics

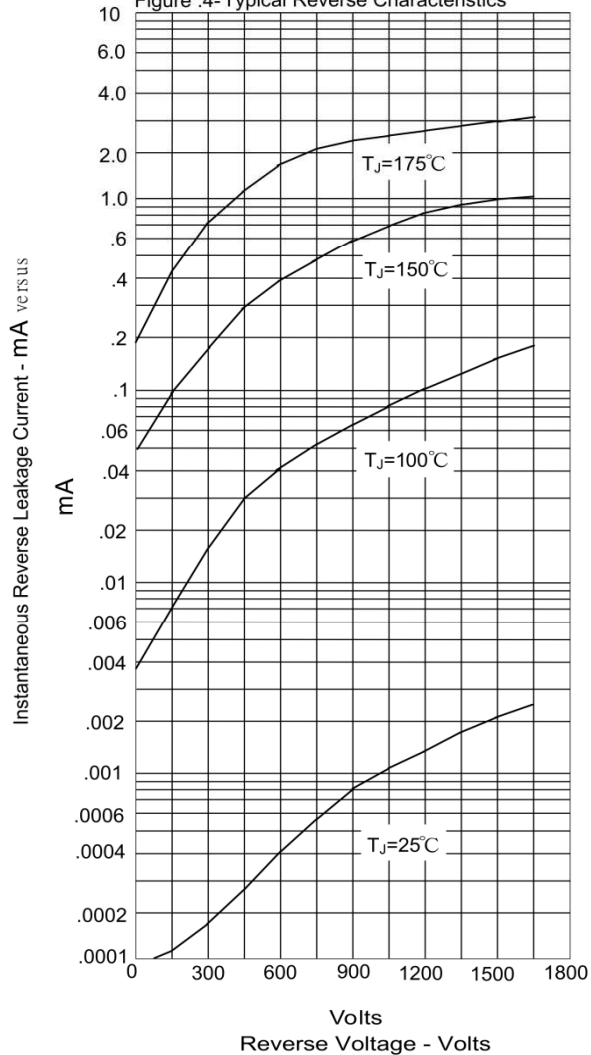


Figure .3-Peak Forward Surge Current

