

## Silicon Standard Recovery Diode

$$V_{RRM} = 50 \text{ V} - 600 \text{ V}$$

$$I_F = 40 \text{ A}$$

### Features

- High Surge Capability
- Types up to 600 V  $V_{RRM}$

DO-5 Package



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

Parameter	Symbol	Conditions	1N1183 (R)	1N1184 (R)	1N1186 (R)	1N1188 (R)	1N1190 (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		50	100	200	400	600	V
RMS reverse voltage	$V_{RMS}$		35	70	140	280	420	V
DC blocking voltage	$V_{DC}$		50	100	200	400	600	V
Continuous forward current	$I_F$	$T_C \leq 150 \text{ }^\circ\text{C}$	40	40	40	40	40	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25 \text{ }^\circ\text{C}$ , $t_p = 8.3 \text{ ms}$	800	800	800	800	800	A
Operating temperature	$T_j$		-65 to 200	-65 to 200	-65 to 200	-65 to 200	-65 to 200	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-65 to 200	-65 to 200	-65 to 200	-65 to 200	-65 to 200	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	1N1183 (R)	1N1184 (R)	1N1186 (R)	1N1188 (R)	1N1190 (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	1.1	V
Reverse current	$I_R$	$V_R = 50 \text{ V}$ , $T_j = 25 \text{ }^\circ\text{C}$	10	10	10	10	10	$\mu\text{A}$
		$V_R = 50 \text{ V}$ , $T_j = 140 \text{ }^\circ\text{C}$	15	15	15	15	15	mA

### Thermal characteristics

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

Figure .1- Typical Forward Characteristics

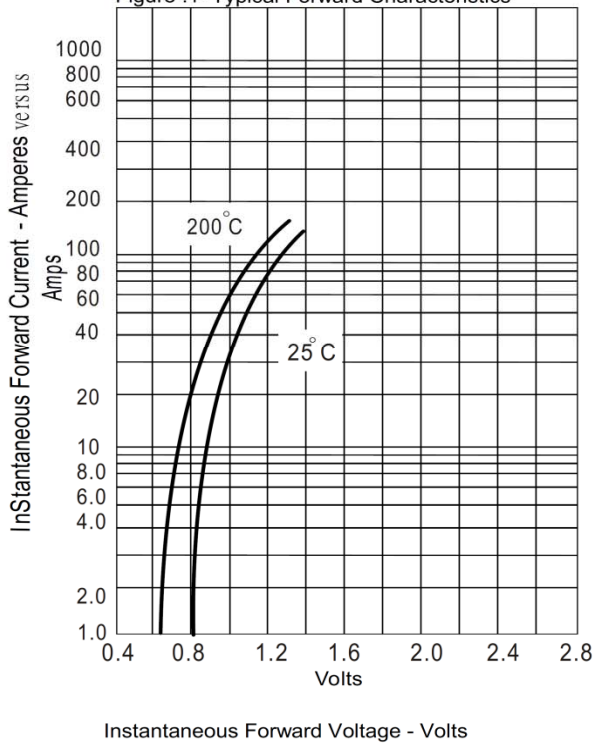


Figure .2- Forward Derating Curve

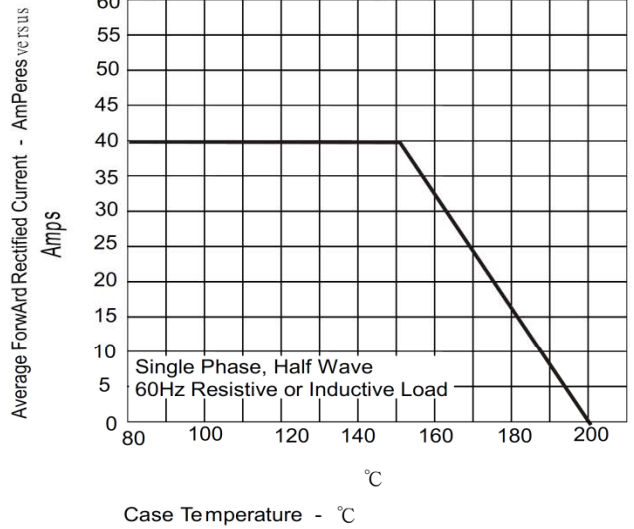


Figure .3- Peak Forward Surge Current

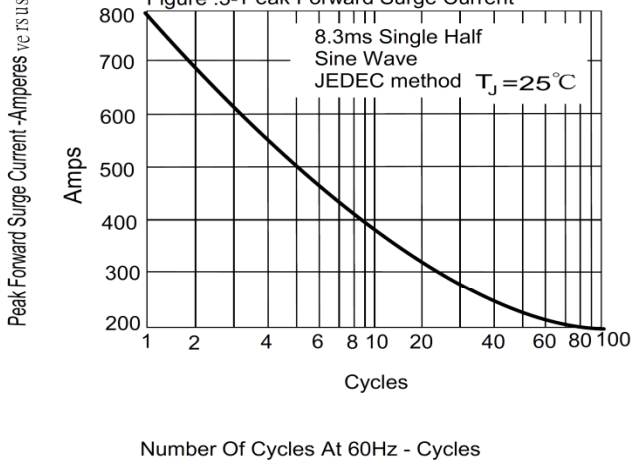


Figure .4- Typical Reverse Characteristics

