

**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**
**Note:**

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.


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

Parameter	Symbol	Conditions	1N1183A(R)	1N1184A(R)	1N1186A(R)	1N1188A(R)	1N1190A(R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		50	100	200	400	600	V
RMS reverse voltage	$V_{RRMS}$		35	70	140	280	420	V
DC blocking voltage	$V_{DC}$		50	100	200	400	600	V
Continuous forward current	$I_F$	$T_C \leq 150^\circ\text{C}$	40	40	40	40	40	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}$ , $t_p = 8.3 \text{ ms}$	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  $T_J = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Conditions	1N1183A(R)	1N1184A(R)	1N1186A(R)	1N1188A(R)	1N1190A(R)	Unit
Diode forward voltage	$V_F$	$I_F = 40 \text{ A}$ , $T_J = 25^\circ\text{C}$	1.1	1.1	1.1	1.1	1.1	V
Reverse current	$I_R$	$V_R = 50 \text{ V}$ , $T_J = 25^\circ\text{C}$	10	10	10	10	10	$\mu\text{A}$
		$V_R = 50 \text{ V}$ , $T_J = 140^\circ\text{C}$	15	15	15	15	15	$\text{mA}$
<b>Thermal characteristics</b>								
Thermal resistance, junction - case	$R_{\theta JC}$		1.25	1.25	1.25	1.25	1.25	$^\circ\text{C/W}$



Figure 1- Typical Forward Characteristics

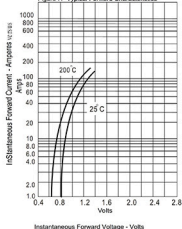


Figure 2- Forward Derating Curve

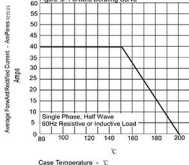


Figure 3- Peak Forward Surge Current

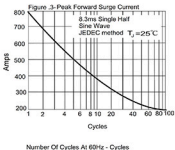


Figure 4- Typical Reverse Characteristics

