



# America Semiconductor

**1N1183 thru  
1N1187R**

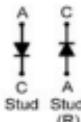
## Silicon Standard Recovery Diode

### Features

- High Surge Capability
- Types up to 1000 V

### Note:

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



### DO-5 Package



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

Parameter	Symbol	Conditions	1N1183(R)	1N1184(R)	1N1186(R)	1N1187(R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		50	100	200	300	V
RMS reverse voltage	$V_{VRRM}$		35	70	140	210	V
DC blocking voltage	$V_{DC}$		50	100	200	300	V
Continuous forward current	$I_F$	$T_c \leq 140^\circ\text{C}$	35	35	35	35	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_c = 25^\circ\text{C}, T_p = 8.3\text{MS}$	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 175	-65 to 175	-65 to 175	-65 to 175	$^\circ\text{C}$

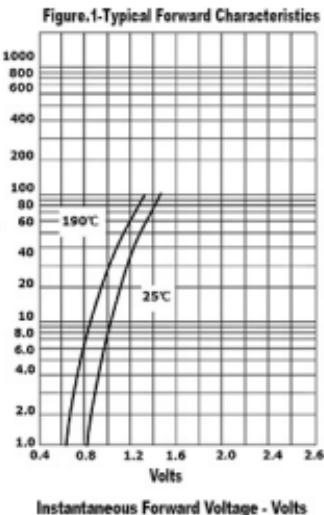
**Electrical characteristics, at  $T_j = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Conditions	1N1183(R)	1N1184(R)	1N1186(R)	1N1187(R)	Unit
Diode forward voltage	$V_F$	$I_F = 35\text{A}, T_j = 25^\circ\text{C}$	1.2	1.2	1.2	1.2	V
Reverse current	$I_R$	$V_R=50\text{V}, T_j = 25^\circ\text{C}$	10	10	10	10	$\mu\text{A}$
		$V_R=50\text{V}, T_j = 140^\circ\text{C}$	10	10	10	10	mA
Thermal characteristics							
Thermal resistance, junction - case	$R_{thJC}$		0.25	0.25	0.25	0.25	$^\circ\text{C}/\text{W}$

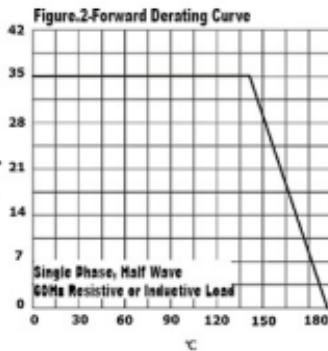




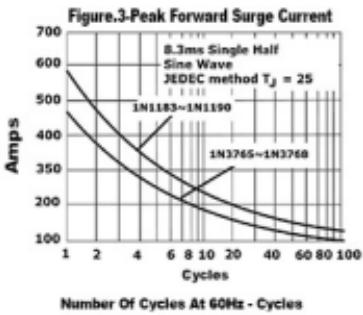
InInstantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes versus  
Case Temperature - °C



Peak Forward Surge Current Amperes versus  
Number Of Cycles At 60Hz - Cycles



Instantaneous Reverse Leakage Current - mA versus  
Reverse Voltage - Volts

