

MOTOROLA
SEMICONDUCTOR
TECHNICAL DATA
1N1183A
thru
1N1190A

 1N1190A is a
 Motorola Preferred Device

MEDIUM-CURRENT RECTIFIERS

... for applications requiring low forward voltage drop and rugged construction.

- High Surge Handling Ability
- Rugged Construction
- Reverse Polarity Available; Eliminates Need for Insulating Hardware in Many Cases
- Hermetically Sealed

40-AMP
RECTIFIERS
SILICON
DIFFUSED-JUNCTION

CASE 42A-01
DO-203AB
METAL
***MAXIMUM RATINGS**

Rating	Symbol	1N1183A	1N1184A	1N1186A	1N1188A	1N1190A	Unit
Peak Repetitive Reverse Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	Volts
Average Half-Wave Rectified Forward Current With Resistive Load ($a T_A = 150^\circ\text{C}$)	I_O	40	40	40	40	40	Amp
Peak One Cycle Surge Current (60 Hz and 150°C Case Temperature)	I_{FSM}	800	800	800	800	800	Amp
Operating Junction Temperature	T_J	65 to +200					$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +200					$^\circ\text{C}$

***ELECTRICAL CHARACTERISTICS** (All Types) at 25°C Case Temperature

Characteristic	Symbol	Value	Unit
Maximum Forward Voltage at 100 Amp DC Forward Current	V_F	1.1	Volts
Maximum Reverse Current at Rated DC Reverse Voltage	I_R	5.0	mA dc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Typical	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.0	$^\circ\text{C/W}$

*Indicates JEDEC registered data

MECHANICAL CHARACTERISTICS

CASE: Welded, hermetically sealed construction
FINISH: All external surfaces corrosion-resistant and the terminal lead is readily solderable
WEIGHT: 25 grams (approx)
POLARITY: Cathode connected to case (reverse polarity available denoted by Suffix R, i.e. 1N1183RA)
MOUNTING POSITION: Any
MOUNTING TORQUE: 25 in-lb max