

1N6391

SCHOTTKY RECTIFIER



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Switch mode Power Rectifier.

employing the Schottky Barrier principle in a large area metal-to-silicon power diode. State-of-the-art geometry features epitaxial construction with oxide passivation and metal overlap contact. Ideally suited for use as rectifiers in low-voltage, high-frequency inverters, free wheeling diodes, and polarity protection diodes.

- Extremely Low V_f
- Low Stored Charge, Majority Carrier Conduction
- Low Power Loss/High Efficiency
- High Surge Capacity

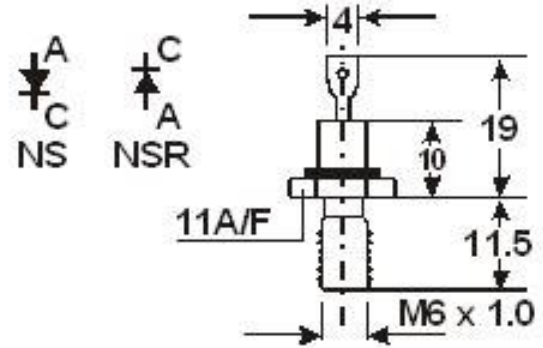
Mechanical Characteristics :

- Case Welded steel, hermetically sealed
- Finish : All External Surfaces Corrosion Resistant and Terminal Lead is Readily Solderable

Solder Heat : The excellent heat transfer property of the heavy duty copper anode terminal which transmits heat away from the die requires that caution be used when attaching wires.

- Stud Torque: 15 lb-in max

25 AMPERE
45 VOLTS



MAXIMUM RATINGS

Ratings	Symbol	1N6391	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	45	Volts
Working Peak Reverse Voltage	V_{RWM}		
PC Blocking Voltage	V_R		
Nonrepetitive Peak Reverse Voltage	V_{PRM}	54	Volts
Average Rectified Forward Current $V_{RRM} = 50.2 V_{PRM}$, $T_C = 85^\circ C$	I_o	25	Amps
Ambient Temperature Rated V_{PRM} , $P_{FAV} = 0$, $R_{th(j-c)} = 3.5^\circ C/W$	T_A	90	$^\circ C$
Nonrepetitive Peak Surge Current (surge applied at rated load conditions, halfwave, single phase, 60 Hz)	I_{FSM}	600 for one cycle	Amps
Operating and Storage Junction Temperature Range (Reverse voltage applied)	T_J, T_{stg}	-65 TO +150	$^\circ C$
Peak Operating Junction Temperature (Forward Current Applied)	$T_{J(pk)}$	150	$^\circ C$

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to case	$R_{th(j-c)}$	2.0	$^\circ C/W$

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ C$ unless otherwise noted)

Maximum Instantaneous Forward Voltage ($I_o = 5$ Amps) ($I_o = 50$ Amps)	V_f	0.44 0.78	Volts
Maximum Instantaneous Reverse Current @ $125^\circ C$ @ $175^\circ C$		40 400	ma ma