

SD41

SCHOTTKY RECTIFIER



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N A I N A



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

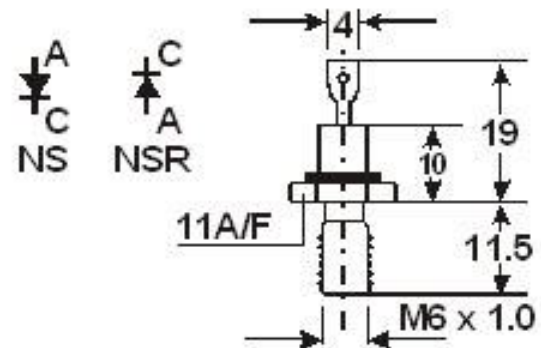
Mechanical Characteristics :

- 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

**30 AMPERE
45 VOLTS**



MAXIMUM RATINGS

Ratings	Symbol	SD41	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_{RDM}	54	Volts
Average Rectified Forward Current $V_{(REP)} \leq 0.2 V_{(RM)}$, $T_C = 85^\circ C$	I_O	30	Amps
Ambient Temperature Rated $V_{(RM)}$, $P_{(AV)} = 0$, $R_{(JA)} = 3.5^\circ C/W$	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_{JC}	2.0	$^\circ C/W$

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

Maximum Instantaneous Forward Voltage ($I_F = 30$ Amps) ($I_F = 60$ Amps) ($I_F = 60$ Amps @ $150^\circ C$)	V_F	0.58 0.75 0.70	Volts
Maximum Instantaneous Reverse Current @ $25^\circ C$ @ $125^\circ C$		50 125	ma ma