

NTE5826 thru NTE5829 Silicon Power Rectifier Diode, 50 Amp

Description:

The NTE5826 thru NTE5829 are silicon power rectifier diodes in a press-fit type package designed for use in all medium-current applications or for higher current industrial alternators and chassis mounted power supply rectifiers.

Features:

- 50 Amp @ $T_C = +150^\circ\text{C}$
- 600 Amp Surge Capability
- Rugged Construction
- Available in Standard (NTE5826, NTE5828) and Reverse (NTE5827, NTE5829) Polarity

Absolute Maximum Ratings:

| | | | | | | |
|---|-------------------|-------|-------------------------------------|--|--|--|
| Peak Repetitive Reverse Voltage, V_{RRM} | | | | | | |
| | NTE5826, NTE5827* | ..... | 400V | | | |
| | NTE5828, NTE5829* | ..... | 800V | | | |
| Working Peak Reverse Voltage, V_{RWM} | | | | | | |
| | NTE5826, NTE5827* | ..... | 400V | | | |
| | NTE5828, NTE5829* | ..... | 800V | | | |
| DC Blocking Voltage, V_B | | | | | | |
| | NTE5826, NTE5827* | ..... | 400V | | | |
| | NTE5828, NTE5829* | ..... | 800V | | | |
| Non-Repetitive Peak Reverse Voltage, V_{RSM} | | | | | | |
| | NTE5826, NTE5827* | ..... | 450V | | | |
| | NTE5828, NTE5829* | ..... | 850V | | | |
| RMS Reverse Voltage, $V_{R(RMS)}$ | | | | | | |
| | NTE5826, NTE5827* | ..... | 280V | | | |
| | NTE5828, NTE5829* | ..... | 560V | | | |
| Average Rectified Forward Currnt (Single phase, resistive load, $T_C = +150^\circ\text{C}$), I_O |  | ..... | 50A | | | |
| Non-Repetitive Peak Surge Current (Surge applied at rated load conditions), I_{FSM} |  | ..... | 600A | | | |
| Operating Junction Temperature Range, T_J |  | ..... | -65° to $+195^\circ\text{C}$ | | | |
| Storage Temperature Range, T_{stg} |  | ..... | -65° to $+195^\circ\text{C}$ | | | |
| Maximum Thermal Resistance, Junction-to-Case, R_{thJC} |  | ..... | 0.8°C/W | | | |

Note 1. Standard polarity is cathode to case, (*) indicated anode to case.

Electrical Characteristics:

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------|--------|--|-----|------|------|------|
| Instantaneous Forward Voltage | v_F | $i_F = 157\text{A}, T_J = +25^\circ\text{C}$ | – | 1.10 | 1.18 | V |
| | | $i_F = 50\text{A}, T_J = +25^\circ\text{C}$ | – | 0.95 | 1.00 | V |
| Reverse Current | i_R | $V_{RRM} = \text{Rated Voltage}, T_C = +25^\circ\text{C}$ | – | 0.05 | 0.2 | mA |
| | | $V_{RRM} = \text{Rated Voltage}, T_C = +150^\circ\text{C}$ | – | 1.0 | 2.0 | mA |

