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## NTE6048 thru NTE6073 Industrial Silicon Rectifier, 70A

**Description:**

The NTE6048 thru NTE6073 power rectifiers are stud mounted DO5 packages. Because the silicon junction is carefully fitted within a glass-to-metal hermetically sealed case, reliable operation is assured, even with extreme humidity and under other severe environmental conditions. These power rectifiers are completely corrosion resistant.

A double diffused, passivated junction technique is utilized to provide stable uniform electrical characteristics, Inherent in their design are very low leakage currents and excellent surge handling capability. These NTE power rectifiers are available in both anode-to-case and cathode-to-case polarity in offering extended application parameters.

NTE silicon power rectifiers are ideal for a broad range of commercial uses including power supplies, ultrasonic systems, inverters, welders, emergency generators, battery chargers, DC motor, and motor controls.

**Electrical Ratings and Characteristics:**

Maximum Peak Reverse Voltage (Note 1), $P_{RV}$	
NTE6048, NTE6049*	50V
NTE6050, NTE6051*	100V
NTE6054, NTE6055*	200V
NTE6058, NTE6059*	300V
NTE6060, NTE6061*	400V
NTE6064, NTE6065*	600V
NTE6068, NTE6069*	800V
NTE6072, NTE6073*	1000V
Maximum Forward Current (Single Phase Half Wave, $T_C = +138^\circ\text{C}$ ), $I_O$	70A
Maximum Surge Current (Single Cycle), $I_{FSM}$	1200A
Maximum Forward Voltage Drop ( $I_O = 20\text{mA}$ , $T_C = +25^\circ\text{C}$ ), $V_F$	1.25V
Maximum Reverse Current (FCA @ $+150^\circ\text{C}$ ), $I_R$	2mA
Maximum $I^2t$ (< 8ms)	6000A <sup>2</sup> Sec
Reverse Power for Bulk Avalanche	0.6 Joules
Operating Temperature Range, $T_{opr}$	$-65^\circ$ to $+190^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	$-65^\circ$ to $+200^\circ\text{C}$
Maximum Thermal Impedance, Junction-to-Case, $T_{thJC}$	0.65°C/W

Note 1. \* Indicates anode-to-case polarity.

