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## NTE6090 Silicon Dual Power Rectifier 45V, 30 Amp TO-3P Type Package

**Features:**

- Schottky Barrier Chip
- Guard Ring for Transient Protection
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Current Capability

**Maximum Ratings and Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified. Single Phase, half-wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

Peak Repetitive Reverse Voltage, $V_{RRM}$ .....	45V
Working Peak Reverse Voltage, $V_{RWM}$ .....	45V
DC Blocking Voltage, $V_R$ .....	45V
RMS Reverse Voltage, $V_{R(RMS)}$ .....	32V
Average Rectified Output Current ( $T_C = +100^\circ\text{C}$ ), $I_O$	
Per Device .....	30A
Per Diode .....	15A
Non-Repertitive Peak Forward Surge Current, $I_{FSM}$ (8.3ms Single Half Sine-Wave Surge Superimposed on Rated Load) .....	250A
Forward Voltage Drop (Per Diode, $I_F = 15\text{A}$ ), $V_{FM}$	
$T_J = +25^\circ\text{C}$ .....	0.55V
$T_J = +125^\circ\text{C}$ .....	0.50V
Peak Reverse Current ( $V_R = 45\text{V}$ ), $I_{RM}$	
$T_J = +25^\circ\text{C}$ .....	1.0mA
$T_J = +100^\circ\text{C}$ .....	20mA
Typical Junction Capacitance (Note 1), $C_J$ .....	750pF
Operating Junction Temperature Range, $T_J$ .....	$-55^\circ$ to $+150^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+150^\circ\text{C}$
Peak Surge Junction Temperature (Forward Current Applied), $T_{J(pk)}$ .....	$+175^\circ\text{C}$
Thermal Resistance, Junction-to-Case (Per Diode), $R_{thJC}$ .....	$1.4^\circ\text{C/W}$
Thermal Resistance, Junction-to-Ambient (Per Diode), $R_{thJA}$ .....	$40^\circ\text{C/W}$

Note 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

# TO3P Type Package

