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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%)

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|--|-------------------------------------|
| 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-Repetitive 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° to $+150^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° 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°C/W |
| Thermal Resistance, Junction-to-Ambient (Per Diode), R_{thJA} | 40°C/W |

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

TO3P Type Package

