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## NTE6251 & NTE6252 Silicon Rectifier Dual, Common Cathode TO-3P Type Package

**Features:**

- Dual Rectifier Construction, Positive Center Tap
- Glass Passivated Die Construction
- Superfast 35ns and 50ns Recovery Time
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- 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%)

Maximum Repetitive Peak Reverse Voltage, $V_{RRM}$	
NTE6251 .....	200V
NTE6252 .....	600V
Maximum Working Peak Reverse Voltage, $V_{RWM}$	
NTE6251 .....	200V
NTE6252 .....	600V
Maximum RMS Voltage, $V_{RMS}$	
NTE6251 .....	140V
NTE6252 .....	420V
Maximum DC Blocking Voltage, $V_{DC}$	
NTE6251 .....	200V
NTE6252 .....	600V
Maximum Average Forward Rectified Current ( $T_C = +100^{\circ}\text{C}$ ), $I_{F(AV)}$	
Per Diode .....	15A
Total Device .....	30A
Peak Forward Surge Current, $I_{FSM}$ (8.3ms Single Half Sine-Wave Superimposed on Rated Load)	300A
Maximum Instantaneous Forward Voltage (Per Diode at 15A), $V_F$	
NTE6251 .....	0.95V
NTE6252 .....	1.7V
Maximum DC Reverse Current (At Rated $V_{DC}$ ), $I_R$	
$T_C = +25^{\circ}\text{C}$ .....	10 $\mu\text{A}$
$T_C = +100^{\circ}\text{C}$ .....	500 $\mu\text{A}$

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

Maximum Reverse Recovery Time (Note 1), $t_{rr}$	
NTE6251 .....	35ns
NTE6252 .....	50ns
Typical Junction Capacitance (Note 2), $C_J$	
NTE6251 .....	175pF
NTE6252 .....	145pF
Thermal Resistance (Per Diode)	
Junction-to-Ambient, $R_{thJA}$ .....	40°C/W
Junction-to-Case, $R_{thJC}$ .....	1.5°C/W
Operating Junction Temperature Range, $T_J$ .....	-55° to +150°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C

Note 1. Reverse Recovery test conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{rr} = 0.25\text{A}$ .

Note 2. Measured at 1MHz and applied reverse voltage of 4V.

