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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 μA
$T_C = +100^\circ\text{C}$	500 μA

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.

