



ELECTRONICS, INC.  
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## NTE6113, NTE6115, & NTE6121 Industrial Rectifier 1200 Amp, DO200AB

**Absolute Maximum Ratings:** ( $T_J = +175^\circ\text{C}$  unless otherwise specified)

Repetitive Voltage, $V_{RRM}$	
NTE6113 .....	600V
NTE6115 .....	1200V
NTE6121 .....	1600V
Non-Repetitive Voltage, $V_{RSM}$	
NTE6113 .....	700V
NTE6115 .....	1300V
NTE6121 .....	1700V
Average Forward Current (Half Sine Wave), $I_{F(AV)}$	
+55°C Heatsink Temperature (Double Side Cooled) .....	1625A
+100°C Heatsink Temperature (Single Side Cooled) .....	800A
RMS Current (+25°C Heatsink Temperature, Double Side Cooled), $I_{F(RMS)}$ .....	2950A
DC Forward Current (+25°C Heatsink Temperature, Double Side Cooled), $I_F$ .....	2760A
Peak One-Cycle Surge (Non-Repetitive) of Forward Current (10ms Duration), $I_{FSM}$	
60% $V_{RRM}$ Re-Applied .....	15400A
$V_R \leq 10V$ .....	17700A
Maximum Permissible Surge Energy, $I^2t$	
10ms Duration, 60% $V_{RRM}$ Re-Applied .....	1180000A <sup>2</sup> s
10ms Duration, $V_R \leq 10V$ .....	1560000A <sup>2</sup> s
3ms Duration, $V_R \leq 10V$ .....	1160000A <sup>2</sup> s
Operating Temperature Range, $T_{hs}$ .....	-30° to +175°C
Storage Temperature Range, $T_{stg}$ .....	-40° to +200°C
Typical Thermal Resistance, Junction-to-Heatsink, $R_{th(j-hs)}$ (For a Device with a Max Forward Volt-Drop)	
Single Side Cooled .....	0.065°C/W
Double Side Cooled .....	0.033°C/W

**Electrical Characteristics:** (Maximum Values @  $T_J = +175^\circ\text{C}$  unless otherwise specified)

Peak Forward Voltage Drop ( $I_{FM} = 3770A$ ), $V_{FM}$ .....	1.93V
Forward Conduction Threshold Voltage, $V_O$ .....	0.87V
Forward Conduction Slope Resistance, $r$ .....	0.28mΩ
Peak Reverse Current (At $V_{RRM}$ ), $I_{RRM}$ .....	30mA

