

## NTE5708, NTE5714, NTE5724 & NTE6222 Powerblock Modules

### **Description:**

NTE series powerblock modules come in a convenient industry standard package with screw terminals, offering 2 different circuits that can be used individually or in combination with other modules. All models feature highly efficient thermal management for greatly extended cycle life.

### **Features:**

- Industry Standard Package and Circuits
- Power Control Building Blocks
- Highly Efficient Thermal Management

### **Electrical Specifications:** ( $T_C = +25^\circ\text{C}$ unless otherwise specified)

Average Output Current Per Device ( $T_C = +85^\circ\text{C}$ , 8.3ms),  $I_{T(AV)}$

|                |     |
|----------------|-----|
| <b>NTE5708</b> | 25A |
| <b>NTE5714</b> | 65A |
| <b>NTE5724</b> | 95A |
| <b>NTE6222</b> | 60A |

Maximum Repetitive Peak Reverse Voltage (AC Line),  $V_{RRM}$  ..... 1600V (600V)

Maximum Voltage Drop,  $V_F$

|                                                 |       |
|-------------------------------------------------|-------|
| <b>NTE5708</b> ( $I_F = 75\text{A}$ )           | 1.55V |
| <b>NTE5714, NTE5724</b> ( $I_F = 270\text{A}$ ) | 1.40V |
| <b>NTE6222</b> ( $I_F = 165\text{A}$ )          | 1.40V |

Critical Rate of Rise of On-State Current ( $T_J = +125^\circ\text{C}$ ),  $di/dt$  ..... 100A/ $\mu\text{s}$

Critical Rate of Rise of Off-State Voltage ( $T_J = +125^\circ\text{C}$ ),  $dv/dt$  ..... 500V/ $\mu\text{s}$

Maximum Non-Repetitive Surge Current,  $I_{TSM}$

|                         |       |
|-------------------------|-------|
| <b>NTE5708</b>          | 400A  |
| <b>NTE5714, NTE5724</b> | 1950A |
| <b>NTE6222</b>          | 1500A |

Maximum  $I^2t$  for Fusing ( $t = 8.3\text{ms}$ ),  $I^2t$

|                         |                         |
|-------------------------|-------------------------|
| <b>NTE5708</b>          | 670A <sup>2</sup> sec   |
| <b>NTE5714, NTE5724</b> | 15800A <sup>2</sup> sec |
| <b>NTE6222</b>          | 9350A <sup>2</sup> sec  |

Maximum Required Gate Current to Trigger,  $I_{GT}$  ..... 150mA

Maximum Required Gate Voltage to Trigger,  $V_{GT}$  ..... 3.0V

Average Gate Power,  $P_{G(AV)}$  ..... 500mW

Maximum Peak Gate Reverse Voltage (Reverse),  $V_{GM}$  ..... -5.0V

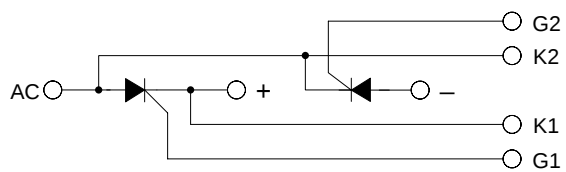
Isolation Voltage (All Terminals to Base),  $V_{ISOL}$  ..... 2500V<sub>RMS</sub>

Operating Junction Temperature Range,  $T_J$  ..... -40° to +125°C

Maximum Thermal Resistance (Per Module), Junction-to-Baseplate,  $R_{thJC}$

|                         |          |
|-------------------------|----------|
| <b>NTE5708</b>          | 0.40°C/W |
| <b>NTE5714, NTE5724</b> | 0.14°C/W |
| <b>NTE6222</b>          | 0.25°C/W |

**NTE5708, NTE5714, NTE5724**



**NTE6222**

