



ELECTRONICS, INC.
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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), $I_{T(AV)}$

NTE5708	25A
NTE5714	65A
NTE5724	95A
NTE6222	60A

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

Maximum Voltage Drop, V_F

NTE5708 ($I_F = 75\text{A}$)	1.55V
NTE5714, NTE5724 ($I_F = 270\text{A}$)	1.40V
NTE6222 ($I_F = 165\text{A}$)	1.40V

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

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

Maximum Non-Repetitive Surge Current, I_{TSM}

NTE5708	400A
NTE5714, NTE5724	1950A
NTE6222	1500A

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

NTE5708	670A ² sec
NTE5714, NTE5724	15800A ² sec
NTE6222	9350A ² 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_{RMS}

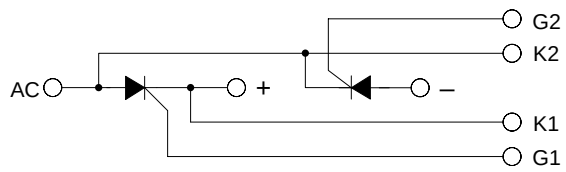
Operating Junction Temperature Range, T_J -40° to +125°C

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

NTE5708	0.40°C/W
NTE5714, NTE5724	0.14°C/W
NTE6222	0.25°C/W



NTE5708, NTE5714, NTE5724



NTE6222

