ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE5708, NTE5714, NTE5724 & NTE6222
Powerblock Modules

Description:

NTE series powerblock modules come in a convienient 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°C unless otherwise specified)

Average Output Current Per Device (T_C = +85°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 = 75A) 1.55V
- **NTE5714, NTE5724** (I_F = 270A) 1.40V
- **NTE6222** (I_F = 165A) 1.40V

Critical Rate of Rise of On–State Current (T_J = +125°C), di/dt 100A/µs

Critical Rate of Rise of Off–State Voltage (T_J = +125°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 = 8.3ms), I^2t
- **NTE5708** . . . . . 670A^2sec
- **NTE5714, NTE5724** . . . . . 15800A^2sec
- **NTE6222** . . . . . 9350A^2sec

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

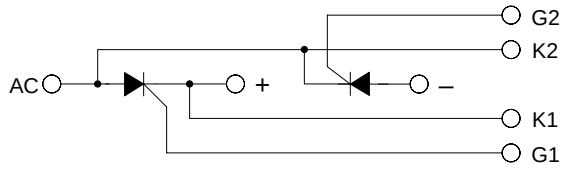
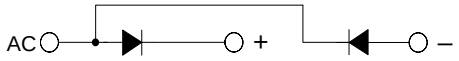
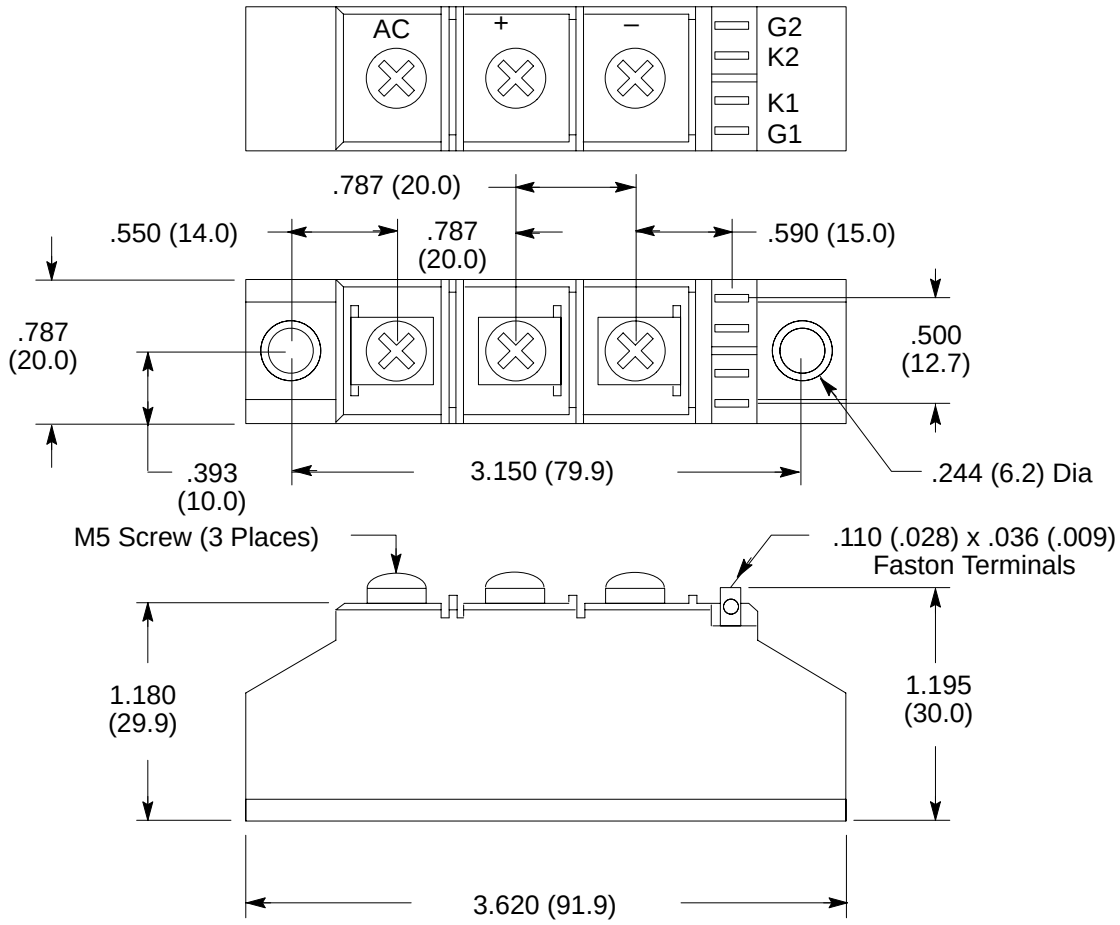
Maximum Peak Gate Reverse Voltage (Reverse), V_{GM} . . . . . –5.0V

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