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

NTE3320
Insulated Gate Bipolar Transistor
N–Channel Enhancement Mode,
High Speed Switch

Features:
- High Input Impedance
- High Speed
- Low Saturation Voltage
- Enhancement Mode

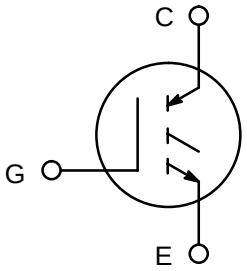
Applications:
- High Power Switching

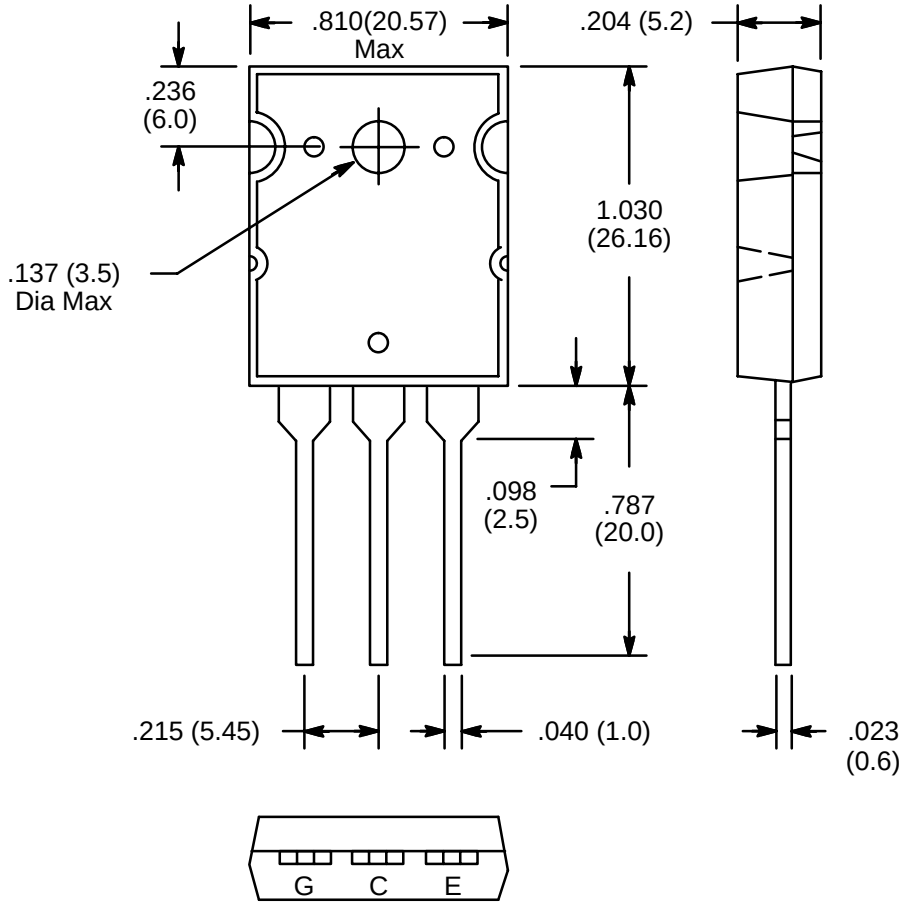
Absolute Maximum Raings: (T_A = +25°C unless otherwise specified)

Collector–Emitter Voltage, V_{CES} 600V
Gate–Emitter Voltage, V_{GES} . . . . . ±20V
Collector Current, I_C
DC 50A
Pulse (1ms) 100A
Collector Power Dissipation (T_C = +25°C), P_C 200W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 0.625°C/W
Screw Torque 0.8Nm

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Gate Leakage Current	I_{GES}	V_{GE} = ±20V, V_{CE} = 0	–	–	±500	nA
Collector Cutoff Current	I_{CES}	V_{CE} = 600V, V_{GE} = 0	–	–	1.0	mA
Collector–Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C = 2mA, V_{GE} = 0	600	–	–	V
Gate–Emitter Cutoff Voltage	$V_{GE(off)}$	I_C = 50mA, V_{CE} = 5V	3.0	–	6.0	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 50A, V_{GE} = 15V	–	3.0	4.0	V
Input Capacitance	C_{ies}	V_{CE} = 10V, V_{GE} = 0, f = 1MHz	–	3500	–	pF
Rise Time	t_r	V_{CC} = 300V	–	0.30	0.60	µs
Turn–On Time	t_{on}		–	0.40	0.80	µs
Fall Time	t_f		–	0.15	0.35	µs
Turn–Off Time	t_{off}		–	0.50	1.00	µs





Note: Collector connected to heat sink.