NTE ELECTRONICS, INC.
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BLOOMFIELD, NJ 07003
(973) 748–5089

NTE3300
Insulated Gate Bipolar Transistor
N–Channel Enhancement Mode,
High Speed Switch

Features:
- High Input Impedance
- Low Saturation Voltage
- Enhancement Mode
- 20V Gate Drive

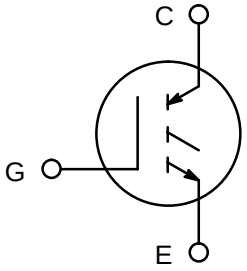
Applications:
- High Power Switching
- Motor Control

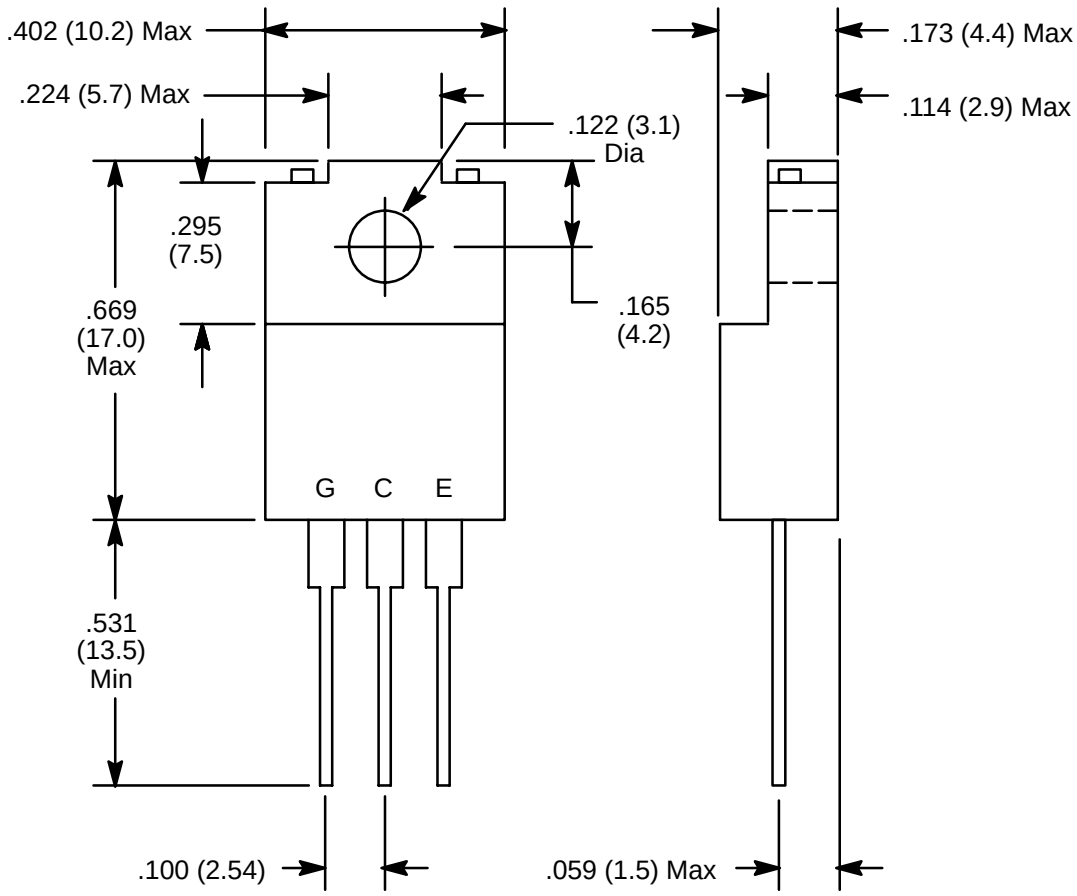
Absolute Maximum Raings: (T_A = +25°C unless otherwise specified)

Collector–Emitter Voltage, V_{CES} 400V
Gate–Emitter Voltage, V_{GES} . . . . . ±25V
Collector Current, I_C
  DC 10A
  Pulse (1ms) 130A
Collector Power Dissipation, P_C
  T_A = +25°C 2W
  T_C = +25°C 30W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 4.16°C/W
Screw Torque . . . . . 0.6N•m

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Gate Leakage Current	I_{GES}	V_{GE} = ±25V, V_{CE} = 0	–	–	±100	nA
Collector Cutoff Current	I_{CES}	V_{CE} = 400V, V_{GE} = 0	–	–	1.0	µA
Collector–Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C = 2mA, V_{GE} = 0	400	–	–	V
Gate–Emitter Cutoff Voltage	$V_{GE(off)}$	I_C = 1mA, V_{CE} = 5V	4.0	5.0	7.0	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 130A, V_{GE} = 20V (Pulsed)	–	5.0	8.0	V
Input Capacitance	C_{ies}	V_{CE} = 10V, V_{GE} = 0, f = 1MHz	–	1350	–	pF
Rise Time	t_r	V_{CC} = 300V	–	0.1	0.5	µs
Turn–On Time	t_{on}		–	0.15	0.50	µs
Fall Time	t_f		–	4.0	6.0	µs
Turn–Off Time	t_{off}		–	4.5	7.0	µs





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