ELECTRONICS, INC.
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NTE3303
Insulated Gate Bipolar Transistor
N–Channel Enhancement Mode,
High Speed Switch
TO220 Full Pack

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

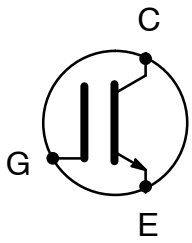
Applications:
- High Power Switching
- Motor Control

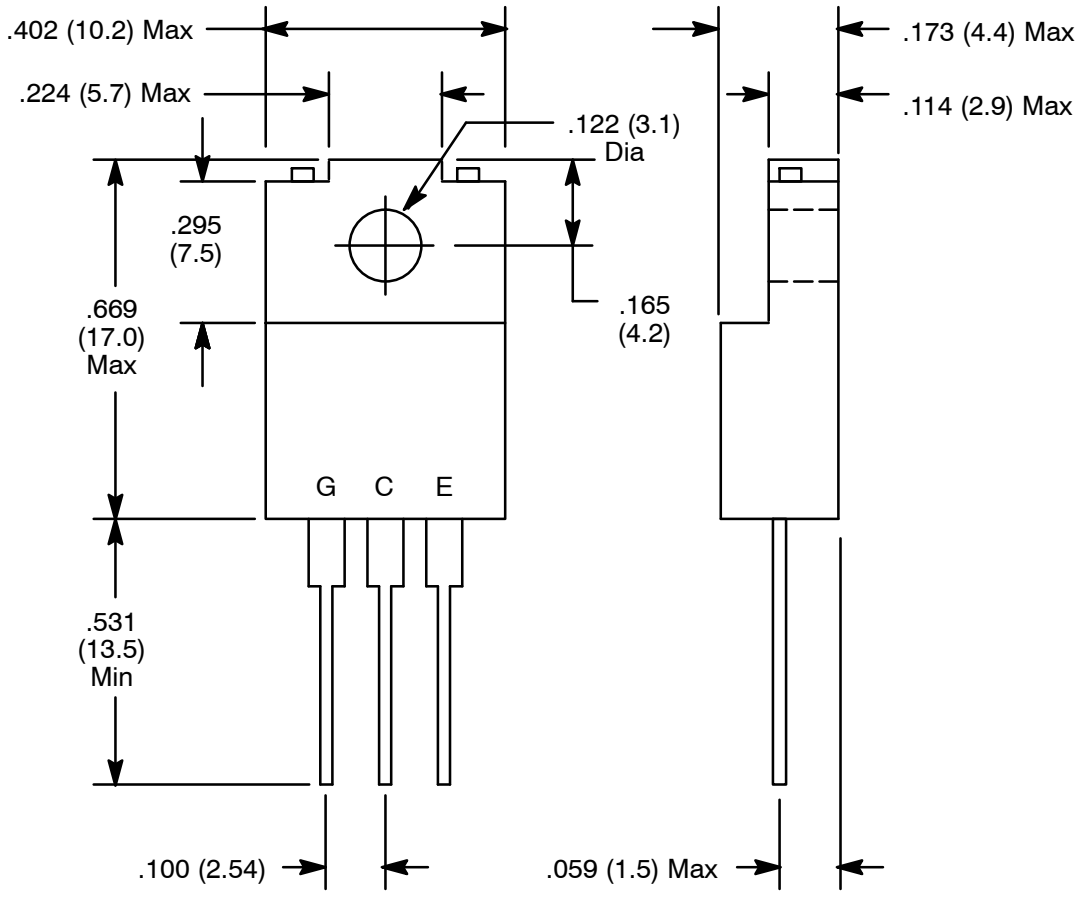
Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Emitter Voltage, V_{CES} 600V
Gate–Emitter Voltage, V_{GES} . . . . . ±20V
Collector Current, I_C
DC 15A
Pulse (1ms) 30A
Collector Power Dissipation (T_C = +25°C), P_C 35W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

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 = 15mA, V_{CE} = 5V	3.0	–	6.0	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 15A, V_{GE} = 15V	–	3.0	4.0	V
Input Capacitance	C_{ies}	V_{CE} = 10V, V_{GE} = 0, f = 1MHz	–	1100	–	pF
Rise Time	t_r	V_{CC} = 300V	–	0.3	0.6	μs
Turn–On Time	t_{on}		–	0.4	0.8	μs
Fall Time	t_f		–	0.15	0.35	μs
Turn–Off Time	t_{off}		–	0.5	1.0	μs





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