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NTE2665

Silicon NPN Transistor

Horizontal Deflection Output for High Resolution Display, Color TV

Features:

- High Voltage: $V_{CBO} = 1700V$
- Low Saturation Voltage: $V_{CE(sat)} = 3V$ Max
- High Speed: $t_f = 0.1\mu s$ Typ

Absolute Maximum Ratings: ($T_C = +25^\circ C$ unless otherwise specified)

Collector-Base Voltage, V_{CBO}	1700V
Collector-Emitter Voltage, V_{CEO}	800V
Emitter-Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	28A
Pulsed	56A
Base Current, I_B	14A
Collector Power Dissipation, P_C	220W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	-55° to +150°C

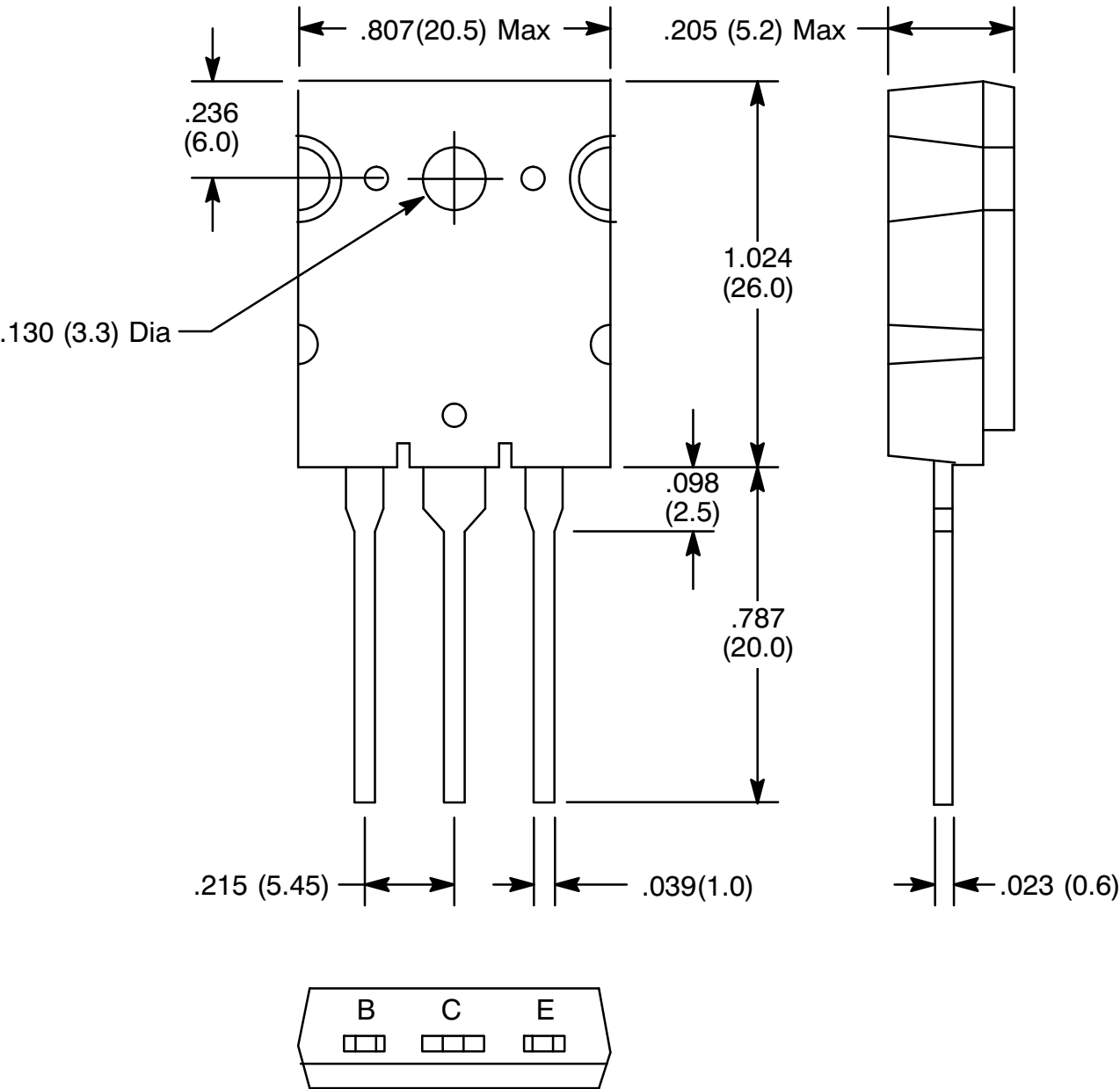
Note 1. Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the "Absolute Maximum Ratings".

Electrical Characteristics: ($T_C = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 1700V, I_E = 0$	-	-	1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	-	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	800	-	-	V
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 2A$	22	-	48	
		$V_{CE} = 5V, I_C = 8A$	12.5	-	25.0	
		$V_{CE} = 5V, I_C = 22A$	4.5	-	7.5	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 22A, I_B = 5.5A$	-	-	3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 22A, I_B = 5.5A$	-	1.0	1.5	V
Transition Frequency	f_T	$V_{CE} = 10V, I_C = 100mA$	-	2	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	470	-	pF

Electrical Chracteristics (Cont'd): ($T_C = +25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Switching Time						
Storage Time	t_{stg}	$I_{CP} = 10\text{A}$, $I_{B1}(\text{end}) = 1.4\text{A}$, $f_H = 64\text{kHz}$	-	2.6	3.0	μs
Fall Time	t_f		-	0.2	0.3	μs
Storage Time	t_{stg}	$I_{CP} = 8\text{A}$, $I_{B1}(\text{end}) = 1.2\text{A}$, $f_H = 130\text{kHz}$	-	1.4	1.6	μs
Fall Time	t_f		-	0.10	0.15	μs



Note: Pin2 connected to heat sink