ELECTRONICS, INC.
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NTE2506
Silicon NPN Transistor
High Frequency Video Driver

Description:

The NTE2506 is a silicon NPN epitaxial transistor in a TO126 type package designed for use in the cascode stage of the driver for high–resolution color graphics monitors.

Features:

- High Breakdown Voltage
- Low Output Capacitance

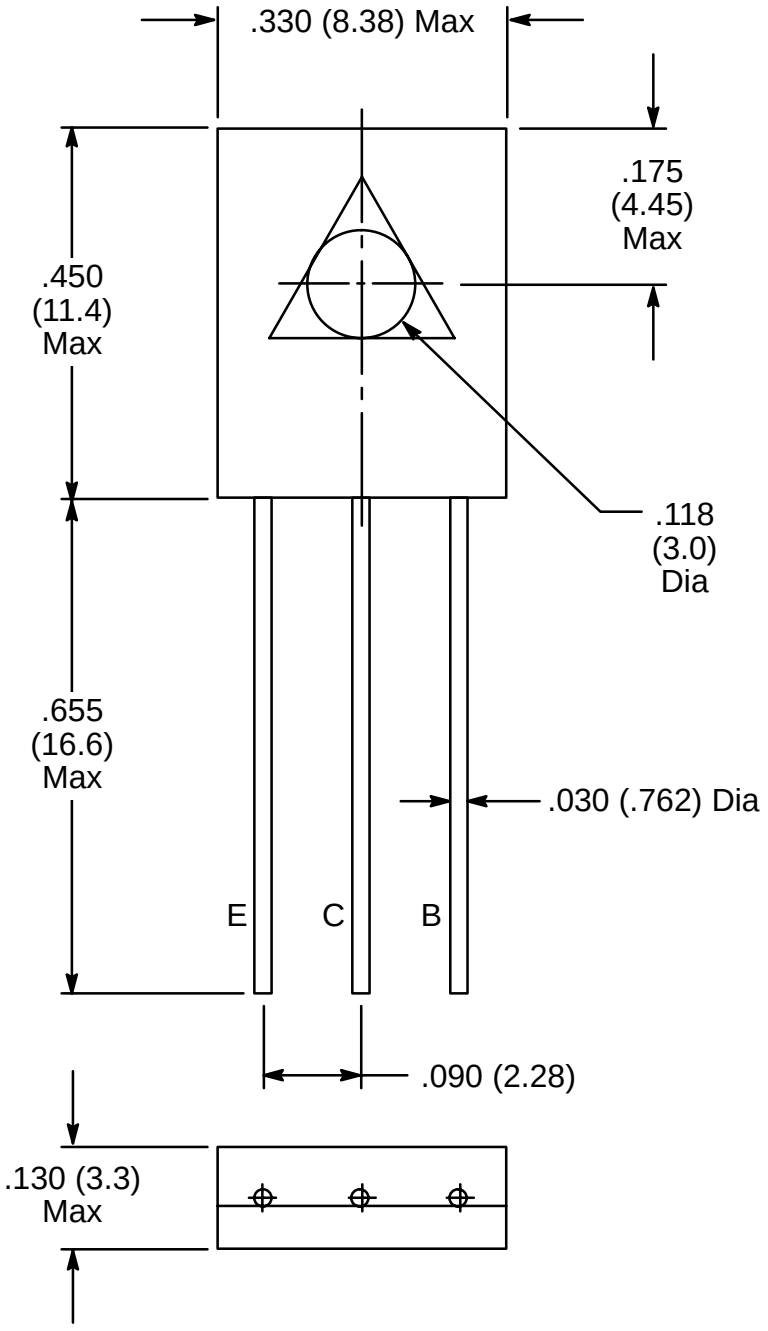
Absolute Maximum Ratings:

Collector–Base Voltage, V_{CBO} 115V
Collector–Emitter Voltage, V_{CEO} 95V
Collector–Emitter Voltage (R_{BE} = 100Ω), V_{CER} 110V
Emitter–Base Voltage, V_{EBO} 3V
DC Collector Current, I_C 400mA
Total Power Dissipation ($T_S \le +85°C$, Note 1), P_{tot} 5W
Operating Junction Temperature, T_J . . . . . +175°C
Storage Temperature Range, T_{stg} . . . . . –65° to +150°C
Thermal Resistance, Junction–to–Soldering Point ($T_S \le +85°C$, Note 1), R_{thJS} 18K/W

Note 1. T_S is the temperature at the soldering point of the collector lead.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 0.1mA	115	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 10mA	95	–	–	V
	$V_{(BR)CER}$	I_C = 10mA, R_{BE} = 100Ω	110	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 0.1mA	3	–	–	V
Collector Cutoff Current	I_{CES}	I_B = 0, V_{CE} = 50V	–	–	100	μA
	I_{CBO}	I_E = 0, V_{CB} = 50V	–	–	20	μA
DC Current Gain	h_{FE}	I_C = 100mA, V_{CE} = 10V, T_A = +25°C	20	35	–	
Transition Frequency	f_T	I_C = 100mA, V_{CE} = 10V, f = 100MHz, T_A = +25°C	0.8	1.2	–	GHz
Collector–Base Capacitance	C_{cb}	I_C = 0, V_{CB} = 10V, f = 1MHz, T_A = +25°C	–	2.0	–	pF
Collector Capacitance	C_c	$I_E = i_e$ = 0, V_{CB} = 10V f = 1MHz	–	3.5	–	pF


.330 (8.38) Max
.175
(4.45)
Max
.450
(11.4)
Max
.118
(3.0)
Dia
.655
(16.6)
Max
.030 (.762) Dia
E
C
B
.090 (2.28)
.130 (3.3)
Max