ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

MPSA63
Silicon PNP Transistor
Darlington Amplifier, Preamp,
TO–92 Type Package

Absolute Maximum Ratings: (T_A = +25°C, Note 1 unless otherwise specified)

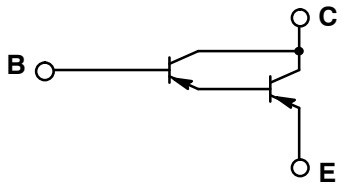
Collector–Emitter Voltage, V_{CES} 30V
Collector–Base Voltage, V_{CBO} 30V
Emitter–Base Voltage, V_{EBO} 10V
Continuous Collector Current, I_C 800mA
Total Device Dissipation, P_D 625mW
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

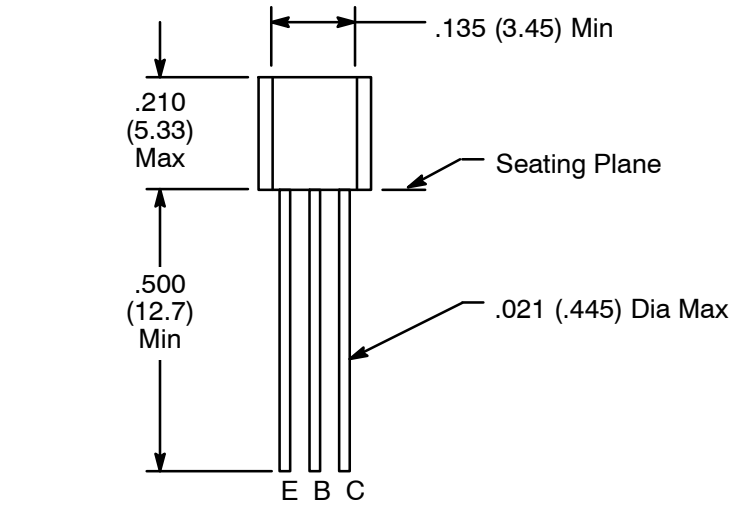
Note 1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired. These are steady state limits and based on a maximum junction temperature of +150°C.

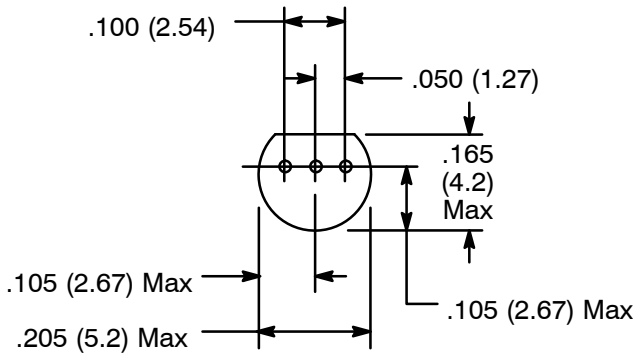
Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E = 0	30	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C = 100μA, V_{BE} = 0	30	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 100μA, I_C = 0	10	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 30V, I_E = 0	–	–	100	nA
	I_{CES}	V_{CE} = 30V, V_{BE} = 0	–	–	500	nA
Emitter–Base Cutoff Current	I_{EBO}	V_{EB} = 10V, I_C = 0	–	–	100	nA
ON Characteristics (Note 2)						
DC Current Gain	h_{FE}	I_C = 10mA, V_{CE} = 5V	5000	–	–	
		I_C = 100mA, V_{CE} = 5V	10000	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 100mA, I_B = 0.1mA	–	–	1.5	V
Base–Emitter ON Voltage	$V_{BE(on)}$	I_C = 100mA, V_{CE} = 5V	–	–	2.0	V
Small Signal Characteristics						
Current Gain – Bandwidth Product	f_T	I_C = 10mA, V_{CE} = 5V, f = 100MHz	125	–	–	MHz

Note 2. Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%


B
C
E


.135 (3.45) Min
.210
(5.33)
Max
Seating Plane
.500
(12.7)
Min
.021 (.445) Dia Max
E B C


.100 (2.54)
.050 (1.27)
.165
(4.2)
Max
.105 (2.67) Max
.205 (5.2) Max
.105 (2.67) Max