

T-33-05

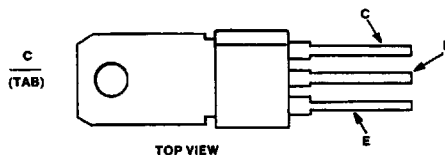
2-Ampere Silicon N-P-N Power Transistors

Complementary to the D41E Series

Features:

- High free-air power dissipation
- Low collector saturation voltage (0.5V typ. @ 1.0A I_C)
- Excellent linearity
- Fast switching

TERMINAL DESIGNATIONS



92CS-43222

JEDEC TO-202AB

POWER TRANSISTORS

The D40E-series of silicon n-p-n power transistors are designed for various specific and general purpose applications, such as: output and driver stages of amplifiers operating at frequencies from DC to greater than 1 MHz; series, shunt and switching regulators; and low and high frequency inverters/converters.

These devices are supplied in the JEDEC TO-202AB plastic package.

MAXIMUM RATINGS ($T_A = 25^\circ C$) (unless otherwise specified)

RATING	SYMBOL	D40E1	D40E5	D40E7	UNITS
Collector-Emitter Voltage	V_{CEO}	30	60	80	Volts
Collector-Emitter Voltage	V_{CES}	45	70	90	Volts
Emitter Base Voltage	V_{EBO}	5	5	5	Volts
Collector Current — Continuous	I_C	2	2	2	A
Peak ⁽¹⁾	I_{CM}	3	3	3	
Base Current — Continuous	I_B	1	1	1	A
Total Power Dissipation @ $T_A = 25^\circ C$ @ $T_C = 25^\circ C$	P_D	1.33 8	1.33 8	1.33 8	Watts
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +150	-55 to +150	-55 to +150	$^\circ C$

THERMAL CHARACTERISTICS

Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	75	75	75	$^\circ C/W$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15.6	15.6	15.6	$^\circ C/W$
Maximum Lead Temperature for Soldering Purposes: 1/8" from Case for 5 Seconds	T_L	+260	+260	+260	$^\circ C$

(1) Pulse Test Pulse Width = 300ms Duty Cycle $\leq 2\%$.