

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1447	A	RELEASED	HO	10/9/03	JWM	10/13/03	DJC	10/13/03
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06

Description: A epitaxial silicon PNP planar transistors in a TO-39 type package designed for use as drivers for high power transistors in general purpose amplifier and switching circuits.

Absolute Maximum Ratings:

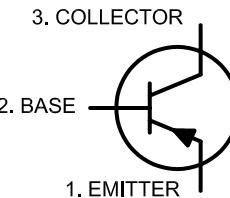
- Collector-Emitter Voltage, $V_{CEO} = 80V$
- Collector-Base Voltage ($I_E = 0$), $V_{CBO} = 80V$
- Emitter-Base Voltage ($I_C = 0$), $V_{EBO} = 7V$
- Collector Current, $I_C = 1A$
- Base Current, $I_B = 200mA$
- Total Device Dissipation ($T_c = +25^\circ C$), $P_{tot} = 6W$
- Total Device Dissipation ($T_A = +25^\circ C$), $P_{tot} = 1W$
- Operating Junction Temperature, $T_j = -65^\circ C \sim +200^\circ C$
- Storage Temperature Range, $T_{stg} = -65^\circ C \sim +200^\circ C$
- Thermal Resistance, Junction-to-Case, $R_{thjc} = 29^\circ C/W$

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 80V, I_E = 0$	—	100	μA
	I_{CBO}	$V_{CE} = 60V, I_B = 0$	—	1	mA
	I_{CEV}	$V_{CE} = 80V, V_{BE} = -1.5V$	—	0.1	μA
		$V_{CE} = 60V, V_{BE} = -1.5V, T_c = +150^\circ C$	—	1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 7V, I_C = 0$	—	500	μA
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0$, Note 1	80	—	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 125mA$, Note 1	—	0.6	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 1V, I_C = 250mA$	—	1	V
DC Current Gain	h_{FE}	$I_C = 250mA, V_{CE} = 2V$, Note 1	30	150	—
		$I_C = 1A, V_{CE} = 1V$, Note 1	10	—	—
Transition Frequency	f_T	$V_{CE} = 10V, I_C = 100mA$, $f = 1MHz$	3	—	MHz
Collector-Base Capacitance	C_{cbo}	$V_{CB} = 10V, I_E = 0$, $f = 0.1MHz$	—	100	pF
Small-Signal Current Gain	h_{fe}	$V_{CE} = 10V, I_C = 50mA$, $f = 1kHz$	25	—	—

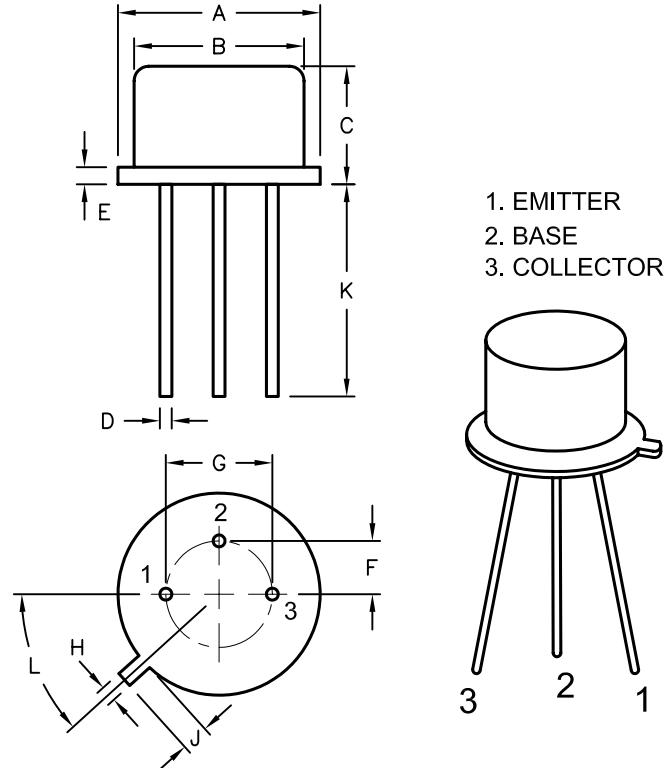
Note 1. Pulse Duration: 300 μs , Duty Cycle $\leq 2\%$.

PNP



 RoHS Compliant

Dimensions	A	B	C	D	E	F	G	H	J	K	L
Min.	8.50	7.74	6.09	0.40	—	2.41	4.82	0.71	0.73	12.70	42°
Max.	9.39	8.50	6.60	0.53	0.88	2.66	5.33	0.86	1.02	—	48°



DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED
HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE
BELIEVE TO BE ACCURATE AND RELIABLE. SINCE
CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE
USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT
FOR THE INTENDED USE AND ASSUME ALL RISK AND
LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

TOLERANCES:
UNLESS OTHERWISE
SPECIFIED,
DIMENSIONS ARE
FOR REFERENCE
PURPOSES ONLY.

DRAWN BY: HISHAM ODISH DATE: 10/9/03
CHECKED BY: JEFF MCVICKER DATE: 10/13/03
APPROVED BY: DANIEL CAREY DATE: 10/13/03

DRAWING TITLE:
Transistor, Bipolar, Metal, TO-39, PNP, Amplifier & Switching
SIZE DWG. NO. A ELECTRONIC FILE 35C0715.DWG REV B
SCALE: NTS U.O.M.: Millimeters SHEET: 1 OF 1