

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1885	A	RELEASED	EO	02/04/06	HO	2/6/06	JWM	2/6/06

Description:

A silicon epitaxial PNP planar transistor 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:

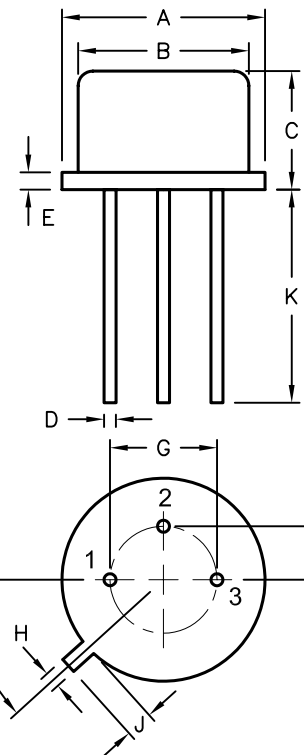
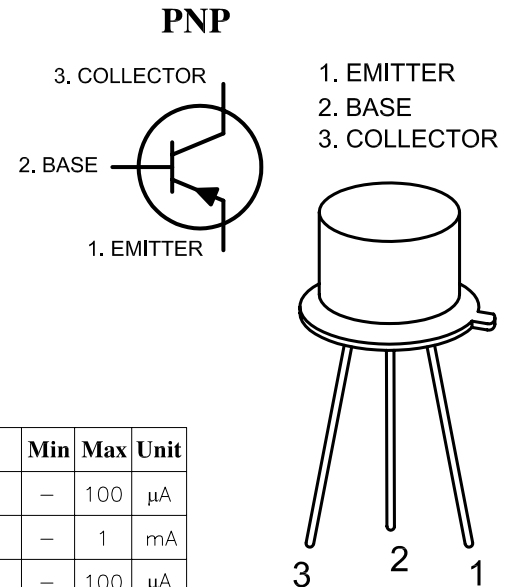
- Collector-Emitter Voltage, $V_{CEO} = 60V$
- Collector-Base Voltage ($I_E = 0$), $V_{CBO} = 60V$
- Emitter-Base Voltage ($I_C = 0$), $V_{EBO} = 7V$
- Collector Current, $I_C = 1A$
- Base Current, $I_B = 200mA$
- Total Device Dissipation ($T_C = +25^\circ C$), $P_{tot} = 6W$
- Total Device Dissipation ($T_A = +25^\circ C$), $P_{tot} = 1W$
- Operating Junction Temperature, $T_J = +200^\circ C$
- Storage Temperature Range, $T_{stg} = -65^\circ C$ to $+200^\circ C$
- Thermal Resistance, Junction-to-Case, $R_{thJC} = 29^\circ C/W$

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 60V, I_E = 0$	-	100	μA
	I_{CEO}	$V_{CE} = 40V, I_B = 0$	-	1	mA
	I_{CEV}	$V_{CE} = 60V, V_{BE} = -1.5V$ $V_{CE} = 40V, V_{BE} = -1.5V, T_C = +150^\circ C$	-	100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$	-	500	μA
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0, (Note 1)$	60	-	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}	$I_C = 250mA, V_{CE} = 1V, (Note 1)$	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 = $\leq 300\mu s$, Duty Cycle $\leq 2\%$.

Dimensions	A	B	C	D	E	F	G	H	J	K	L
Min.	8.50	7.74	6.09	0.40	-	2.41	7.82	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°



SPC-F004.DWG

TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	DRAWN BY:	DATE:	DRAWING TITLE:			
	EKLAS ODISH	02/04/06	Transistor, General Purpose Amplifier, Bipolar, Metal, TO-39, PNP			
	CHECKED BY:	DATE:	SIZE	DWG. NO.	ELECTRONIC FILE	REV
	HISHAM ODISH	2/6/06	A	2N4235	35C0714.DWG	A
APPROVED BY:	DATE:	SCALE: NTS		U.O.M.: Millimeters		
JEEF MCVICKER	2/6/06			SHEET: 1 OF 1		

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