

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1262	A	RELEASED	HO	3/26/03	JWM	3/26/03	DJC	3/26/03
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06

Description:

A silicon PNP transistor in a TO-39 type case designed primarily for amplifier and switching applications. This device features high breakdown voltage, low leakage current, low capacity, and beta useful over an extremely wide current range.

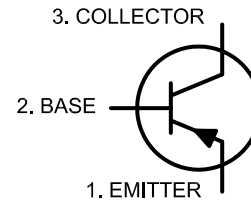
Absolute Maximum Ratings:

- Collector-Base Voltage, $V_{CB0} = 60V$
- Collector-Emitter Voltage, $V_{CEO} = 60V$
- Emitter-Base Voltage, $V_{EBO} = 5V$
- Continuous Collector Current, $I_C = 0.6A$
- Total Device Dissipation ($T_A = +25^\circ C$), $P_D = 0.6W$
Derate above $25^\circ C = 3.43mW/^\circ C$
- Total Device Dissipation ($T_C = +25^\circ C$), $P_D = 3W$
Derate above $25^\circ C = 17.2mW/^\circ C$
- Operating Junction Temperature Range, $T_J = -65^\circ$ to $+200^\circ C$
- Storage Temperature Range, $T_{stg} = -65^\circ$ to $+200^\circ C$
- Lead Temperature (During Soldering, $\frac{1}{16}$ " from case, 60sec max), $T_L = 300^\circ C$

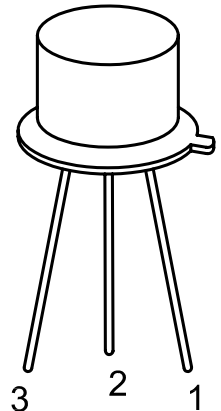


RoHS
Compliant

PNP



1. EMITTER
2. BASE
3. COLLECTOR



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

Parameter	Symbol	Test Conditions	Min	Max	Unit
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OFF Characteristics

Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	60	—	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	60	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	5	—	V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 50V, I_E = 0$	—	10	nA
		$V_{CB} = 50V, I_E = 0, T_A = +150^\circ C$	—	10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{BE} = 5V, I_C = 0$	—	10	μA

ON Characteristics (Note 1)

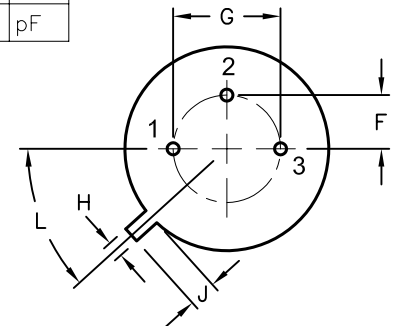
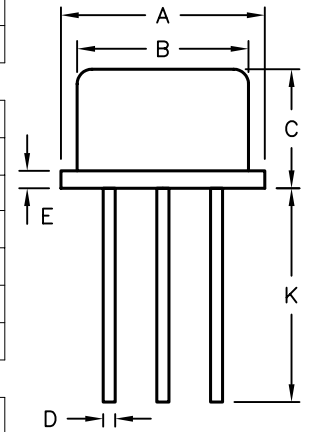
DC Current Gain	h_{FE}	$V_{CE} = 10V, I_C = 100\mu A$	75	—	—
		$V_{CE} = 10V, I_C = 150mA$	100	300	—
		$V_{CE} = 10V, I_C = 500mA$	50	—	—
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 150mA, I_B = 15mA$	—	0.4	V
		$I_C = 500mA, I_B = 50mA$	—	1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 150mA, I_B = 15mA$	—	1.3	V
Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE} = 500mV, I_C = 500mA$	—	2.6	V

Small-Signal Characteristics

Output Capacitance	C_{obo}	$V_{CE} = 10V, f = 1MHz$	—	8	pF
Input Capacitance	C_{ibo}	$V_{EB} = 2V, f = 1MHz$	—	30	pF

Note 1. Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 1\%$.

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°



SPC-F004.DWG

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

DRAWN BY:	DATE:
HISHAM ODISH	3/26/03
CHECKED BY:	DATE:
JEFF MCVICKER	3/26/03
APPROVED BY:	DATE:
DANIEL CAREY	3/26/03

DRAWING TITLE:
Transistor, Bipolar, Amplifier & Switching, PNP, TO-39

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N2905A	35C0695.DWG	B

SCALE: NTS	U.O.M.: Millimeters	SHEET: 1 OF 1
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