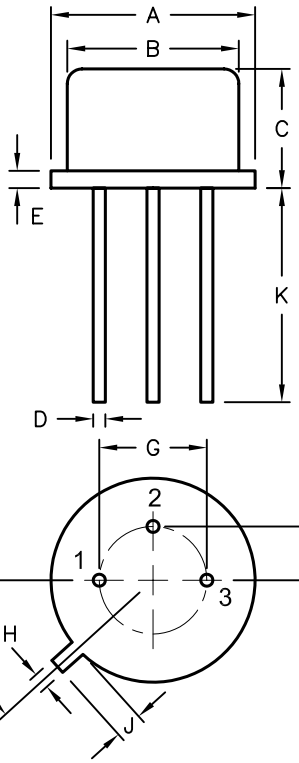
multicomp

REVISIONS								
DOC. NO. SPC-F004 * Effective: 7/8/02 * DCP No: 1398								
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1447	A	RELEASED	HO	4/23/04	SF	8/3/04	JC	8/4/04
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06

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°

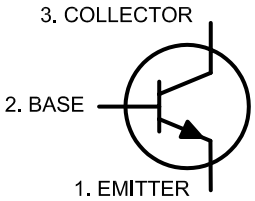
Description: Transistor, Silicon, NPN, TO-39, Metal, High Current, General Purpose

Absolute Maximum Ratings:

- Collector-Emitter Voltage, V_{CEO} = 75V
- Collector-Base Voltage, V_{CBO} = 100V
- Emitter-Base Voltage, V_{EBO} = 7V
- Continuous Collector Current, I_C = 2A
- Base Current, I_B = 1A
- Total Power Dissipation (T_C = +25°C), P_D = 10W
  Derate Above 25°C = 0.057nW/°C
- Operating Junction Temperature Range, T_J = −65° to +200°C
- Storage Temperature Range, T_{stg} = −65° to +200°C

- Thermal Resistance, Junction-to-Case, R_{thJC} = 17.5°C/W

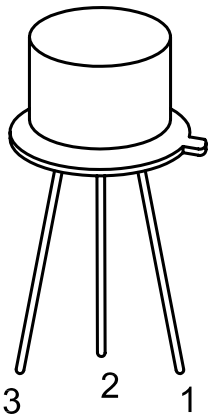
NPN



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

Parameter	Symbol	Test Conditions	Min	Max	Unit
OFF Characteristics					
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 100mA, I_B = 0	75	–	V
Collector Cutoff Current	I_{CEX}	V_{CE} = 100V, V_{BE} = 1.5V	–	0.1	mA
		V_{CE} = 70V, V_{BE} = 1.5V, T_C = +150°C	–	5	mA
Emitter Cutoff Current	I_{EBO}	V_{BE} = 7V, I_C = 0	–	0.1	mA
ON Characteristics					
DC Current Gain, Note 1	h_{FE}	I_C = 500mA, V_{CE} = 4V	30	130	–
		I_C = 1A, V_{CE} = 2V	10	–	–
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 500mA, I_B = 50mA	–	0.5	V
Base-Emitter ON Voltage	$V_{BE(on)}$	I_C = 500mA, V_{CE} = 4V	–	1.1	V
Small-Signal Characteristics					
Small-Signal Current Gain	h_{fe}	I_C = 50mA, V_{CE} = 4V, f = 10MHz	5	–	–
Switching Characteristics					
Turn-On Time	t_{on}	V_{CC} = 30V, I_C = 500mA, I_{B1} = 50mA	–	80	ns
Turn-Off Time	t_{off}	V_{CC} = 30V, I_C = 500mA, I_{B1} = I_{B2} = 50mA	–	800	ns

1. EMITTER
2. BASE
3. COLLECTOR



Note 1. Pulse Test: Pulse Width ≦ 300μs, Duty Cycle ≦ 2%.

SPC-F004.DWG

TOLERANCES:	DRAWN BY:	DATE:	DRAWING TITLE: Transistor, General Purpose, NPN, TO-39, Metal			
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	HISHAM ODISH	4/23/04	SIZE: A	DWG. NO.: 2N5320	ELECTRONIC FILE: 35C0721.DWG	REV: B
	CHECKED BY:	DATE:	SCALE: NTS	U.O.M.: Millimeters	SHEET: 1 OF 1	
	STEVE FEIWELL	8/3/04				
	APPROVED BY:	DATE:				
	JOHN COLE	8/4/04				