

ALL RIGHTS RESERVED. NO PORTION OF THIS PUBLICATION, WHETHER IN WHOLE OR IN PART CAN BE REPRODUCED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPC TECHNOLOGY.

DC FOOE DWG		

ı.	REVISIONS			DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No:						
	DCP # REV DESCRIPTION		DRAWN	DATE	CHECKD	DATE	APPRVD	DATE		
	1885 A RELEASED		BYF	02/03/06	но	2/6/06	JWM	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, $V_{CBO} = 60V$

- Collector-Emitter Voltage, V_{CEO} = 60V Emitter-Base Voltage, V_{EBO} = 5V Continuous Collector Current, I_C = 1A Total Device Dissipation (T_A = +25°C), P_D = 0.8W

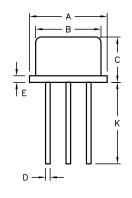
Derate above 25°C = 4.56mW/°C

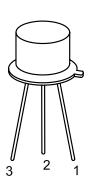
- Total Device Dissipation ($T_C = +25^{\circ}C$), $P_D = 4W$ Derate above $25^{\circ}C = 22.8 \text{mW/}^{\circ}C$

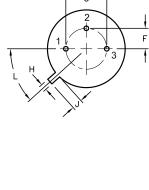
- Operating Junction Temperature Range, $T_J = -65^{\circ}\text{C}$ to $+200^{\circ}\text{C}$ Storage Temperature Range, $T_{stg} = -65^{\circ}\text{C}$ to $+200^{\circ}\text{C}$ Thermal Resistance, Junction-to-Case, $R_{thJC} = 20^{\circ}\text{C/W}$

- Thermal Resistance, Junction-to-Ambient, $R_{thJA} = 140^{\circ}C/W$
- Lead Temperature (During Soldering 1/16"from case, 60sec max), $T_L = 300$ °C

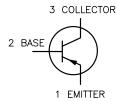
Dim	Min	Max			
A	8.50	9.39			
В	7.74	8.50			
C	6.09	6.60			
D	0.40	0.53			
E	-	0.88			
F	2.41	2.66			
G	4.82	5.33			
Н	0.71	0.86			
J	0.73	1.02			
K	12.70	_			
L	42 DEG	48 DEG			







PNP



STYLE 1

PIN 1. EMITTER

- 2. BASE
- 3. COLLECTOR

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:	DATE:
BASAM YOUSIF	02/03/06
CHECKED BY:	DATE:
HISHAM ODISH	2/6/06
APPROVED BY:	DATE:
JEEE MCVICKER	2/6/06

DRAW	ING TITLE:					
	Power Tr	ansistor, Silicon,	TO-3	9, PNP		
SIZE	DWG. NO.		ELEC	TRONIC FIL	E	REV
Α	2N4032			C0709.	DWG	Α
SCAL	SCALE: NTS U.O.M.: MILLIMETERS			SHEET:	1 OF	2

Parameter				Symbol		Test Condit	:.
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}	$I_C = 10$ mA, $I_B = 0$	60	-	٧
Collector—Base Breakdown Voltage	V _{(BR)CEO}	$I_{C} = 10 \mu A, I_{E} = 0$	60	_	V
Emitter—Base Breakdown Voltage	V _{(BR)EBO}	$I_{E} = 10 \mu A, I_{C} = 0$	5	_	٧
Collector Cut-Off Current	I _{CBO}	$V_{CB} = 50V, I_{E} = 0$	_	50	nA
	+CBO	$V_{CB} = 50V, I_{E} = 0, T_{A} = +150^{\circ}C$	_	50	μΑ
Emitter Cut-Off Current	I _{EBO}	$V_{BE} = 5V, I_{C} = 0$	_	10	μА
ON Characteristics	•				•
		V _{CE} = 5V, I _C = 100μA	75	_	_
		$V_{CE} = 5V$, $I_{C} = 100$ mA	100	300	_
DC Current Gain	h _{FE}	$V_{CE} = 5V$, $I_{C} = 100$ mA, $T_{A} = -55$ °C	40	_	_
		$V_{CE} = 5V$, $I_{C} = 500$ mA	70	_	_
		$V_{CE} = 5V$, $I_{C} = 1A$	40	_	_
Collector—Emitter Saturation Voltage	V	I_C = 150mA, I_B = 15mA	_	0.15	V
	V _{CE(sat)}	I_{C} = 500mA, I_{B} = 50mA	_	0.5	V
Base—Emitter Saturation Voltage	V BE(sat)	I_C = 150mA, I_B = 15mA	_	0.9	V
Base—Emitter ON Voltage	V _{BE(on)}	$V_{CE} = 500$ mV, $I_{C} = 500$ mA	_	1.1	V
Small-Signal Characteristics	•				•
Output Capacitance	C _{obo}	V _{CE} = 10V, f = 1MHz	_	20	рF
Input Capacitance	C _{IBO}	$V_{EB} = 500$ mV, $f = 1$ MHz	_	110	pF
Small—Signal Current Gain	h _{fe}	$V_{CE} = 10V$, $I_{C} = 50$ mA, $f = 100$ MHz	1	4	-
Switching Characteristics					
Storage Time	ts	$I_{C} = 500$ mA, $I_{B1} = I_{B2} = 50$ mA	_	350	ns
Turn-On Time	ton	$I_{\rm C} = 500$ mA, $I_{\rm B1} = 50$ mA	_	100	ns
Fall Time	t _f	$I_{\rm C} = 500$ mA, $I_{\rm B1} = I_{\rm B2} = 50$ mA	_	50	ns

ALL RIGHTS RESERVED NO PORTION OF THIS PUBLICATION WHETHER IN	WHOLE OR IN PART CAN BE REPRODUCED WITHOUT THE	SIZE DWG. NO.		ELECTRONIC FILE		REV	
EXPRESS WRITTEN CONSENT OF SPC TECHNOLOGY.		A	2N	4032	35	C0709.DWG	A
SPC-F005 DWG	DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398	SCALE	E: NTS	U.O.M.: MILLIMETERS		SHFFT: 2 0	F 2