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SPC-F005.DWG

REVISIONS

DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1447	A	RELEASED	HO	3/31/04	SF	8/12/04	JC	8/16/04
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06



Description: This TO-126 plastic silicon epitaxial base NPN power transistor in a monolithic Darlington configuration is intended for use in medium power linear and switching applications.

Absolute Maximum Ratings:

- Collector-Base Voltage, $V_{CBO} = 100V$
- Collector-Emitter Voltage, $V_{CEO} = 100V$
- Emitter-Base Voltage, $V_{EBO} = 5V$
- Continuous Collector Current, $I_C = 4A$
- Base Current, $I_B = 100mA$
- Total Device Dissipation ($T_C = +25^\circ C$), $P_D = 40W$
- Operating Junction Temperature Range, $T_J = -65^\circ$ to $+150^\circ C$
- Storage Temperature Range, $T_{stg} = -65^\circ$ to $+150^\circ C$

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
OFF Characteristics					
Collector-Emitter Breakdown Voltage, Note 1	$V_{(BR)CEO}$	$I_C = 50mA, I_B = 0$	100	-	V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 100V, I_B = 0$	-	200	μA
	I_{CBO}	$V_{CB} = 50V, I_B = 0$	-	500	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	2	mA

ON Characteristics					
DC Current Gain, Note 1	h_{FE}	$V_{CE} = 3V, I_C = 1.5A,$	750	-	-
Collector-Emitter Saturation Voltage, Note 1	$V_{CE(sat)}$	$I_C = 1.5A, I_B = 30mA,$	-	2.5	V
Base-Emitter On Voltage, Note 1	$V_{BE(on)}$	$I_C = 1.5A, V_{CE} = 3V,$	-	2.5	V

Small-Signal Characteristics					
Small-Signal Current Gain	h_{fe}	$V_{CE} = 3V, I_C = 1.5A, f = 1kHz$	1	-	-

Note 1. Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.

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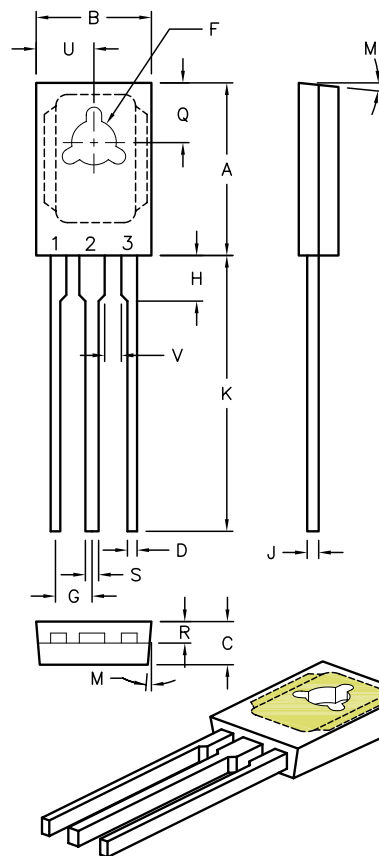
TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
HISHAM ODISH	3/31/04
CHECKED BY:	DATE:
STEVE FEIWELL	8/12/04
APPROVED BY:	DATE:
JOHN COLE	8/16/04

DRAWING TITLE:			
Transistor, Power, Plastic, TO-126, NPN			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	BD681	01H0333.DWG	B
SCALE:	NTS	U.O.M.: MILLIMETERS	SHEET: 1 OF 1

NPN

Dim	Min	Max
A	10.80	11.05
B	7.49	7.75
C	2.41	2.67
D	0.51	0.66
F	2.92	3.18
G	2.31	2.46
H	1.27	2.41
J	0.38	0.64
K	15.11	16.64
M	3' TYP	
Q	3.76	4.01
R	1.14	1.40
S	0.64	0.89
U	3.68	3.94
V	1.02	-



STYLE 1

- PIN 1. EMITTER
- 2. COLLECTOR
- 3. BASE

