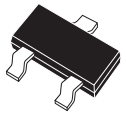
BCV47

NPN
SILICON DARLINGTON TRANSISTOR



SOT-23 CASE

Central™
Semiconductor Corp.

DESCRIPTION:
The CENTRAL SEMICONDUCTOR BCV47 type is a Silicon NPN Darlington Transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring extremely high gain.

Marking Code is FG.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	500	mA
Peak Collector Current	I_{CM}	800	mA
Base Current	I_B	100	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	V_{CB}=30V			100	nA
I_{EBO}	V_{BE}=10V			100	nA
BV_{CEO}	I_C=10mA	60			V
BV_{CBO}	I_C=10μA	80			V
BV_{EBO}	I_E=100nA	10			V
$V_{CE(SAT)}$	I_C=100mA, I_B = 0.1mA			1.0	V
$V_{BE(SAT)}$	I_C=100mA, I_B = 0.1mA			1.5	V
h_{FE}	V_{CE}=5.0V, I_C = 1.0mA	2,000			
h_{FE}	V_{CE}=5.0V, I_C = 10mA	4,000			
h_{FE}	V_{CE}=5.0V, I_C = 100mA	10,000			
f_T	V_{CE}=5.0V, I_C = 30mA, f=100MHz		220		MHz

R0 (07-December 2001)

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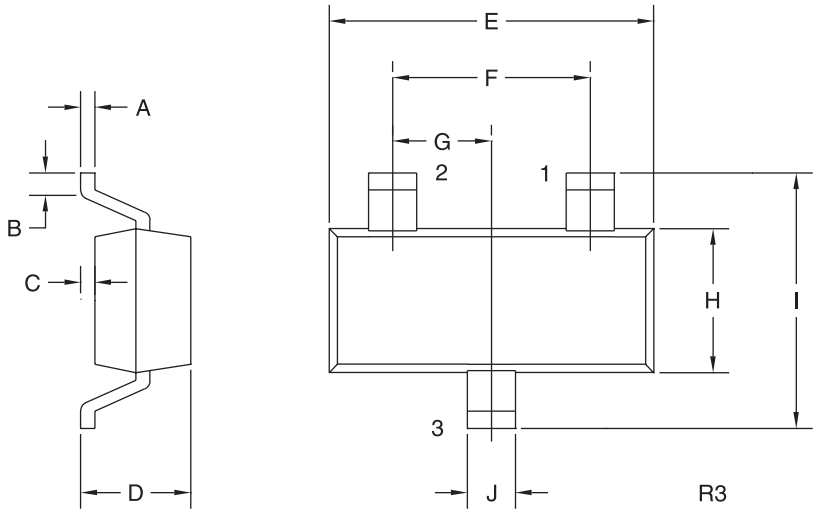
SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) BASE
2) EMITTER
3) COLLECTOR

MARKING CODE: FG

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R0 (07-December 2001)