BC817 SERIES

SURFACE MOUNT SILICON NPN TRANSISTORS

SOT-23 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BC817 series types are silicon NPN transistors, epoxy molded in a surface mount package, designed for general purpose switching and amplifier applications.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	500	mA
Peak Collector Current	I_{CM}	1.0	A
Peak Base Current	I_{BM}	200	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}=20V			100	nA
I_{CBO}	V_{CB}=20V, T_J=150°C			5.0	µA
I_{EBO}	V_{EB}=5.0V			100	nA
BV_{CES}	I_C=10µA	50			V
BV_{CEO}	I_C=10mA	45			V
BV_{EBO}	I_E=1.0µA	5.0			V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA			0.7	V
$V_{BE(ON)}$	V_{CE}=1.0V, I_C=500mA			1.2	V
f_T	V_{CE}=5.0V, I_C=10mA, f=100MHz	100			MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		10		pF

		BC817		**BC817-16**		**BC817-25**		**BC817-40**	
		MIN	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**
h_{FE}	V_{CE}=1.0V, I_C=100mA	100	600	100	250	160	400	250	600
h_{FE}	V_{CE}=1.0V, I_C=500mA	40	-	40	-	40	-	40	-

R0 (21-February 2013)

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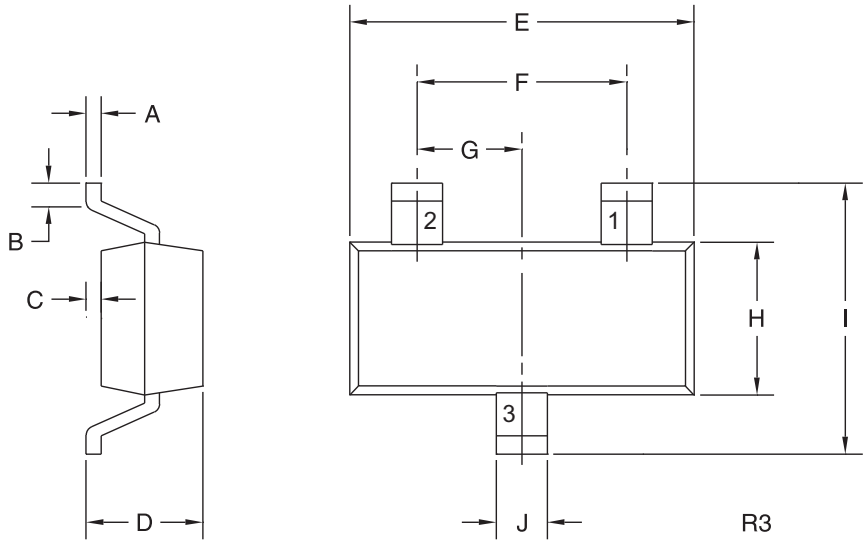
SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) Base
2) Emitter
3) Collector

DEVICE	MARKING CODE
BC817	6A or 6B or 6C or 6D
BC817-16	6A
BC817-25	6B
BC817-40	6C

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)