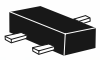
CMUT2907A
ULTRAmini™ SURFACE MOUNT
PNP SILICON TRANSISTOR



SOT-523 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUT2907A type is an PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in an ULTRAmini™ surface mount package, designed for small signal general purpose and switching applications.
Marking Code is FC2.

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	600	mA
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	500	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=50V		10	nA
I_{CBO}	V_{CB}=50V, T_A=125°C		10	μA
I_{CEV}	V_{CE}=30V, V_{BE}=0.5V		50	nA
BV_{CBO}	I_C=10μA	60		V
BV_{CEO}	I_C=10mA	60		V
BV_{EBO}	I_E=10μA	5.0		V
$V_{CE(SAT)}$	I_C=150mA, I_B=15mA		0.4	V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		1.6	V
$V_{BE(SAT)}$	I_C=150mA, I_B=15mA		1.3	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA		2.6	V
h_{FE}	V_{CE}=10V, I_C=0.1mA	75		
h_{FE}	V_{CE}=10V, I_C=1.0mA	100		
h_{FE}	V_{CE}=10V, I_C=10mA	100		
h_{FE}	V_{CE}=10V, I_C=150mA	100	300	
h_{FE}	V_{CE}=10V, I_C=500mA	50		

R0 (30-May 2001)

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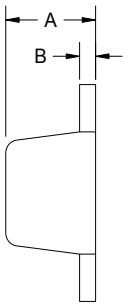
ELECTRICAL CHARACTERISTICS: Continued

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	V_{CE}=20V, I_C=50mA, f=100MHz	200		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		8.0	pF
C_{ib}	V_{BE}=2.0V, I_C=0, f=1.0MHz		30	pF
t_{on}	V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA		45	ns
t_d	V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA		10	ns
t_r	V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA		40	ns
t_{off}	V_{CC}=6.0V, I_C=150mA, I_{B1}=I_{B2}=15mA		100	ns
t_s	V_{CC}=6.0V, I_C=150mA, I_{B1}=I_{B2}=15mA		80	ns
t_f	V_{CC}=6.0V, I_C=150mA, I_{B1}=I_{B2}=15mA		30	ns

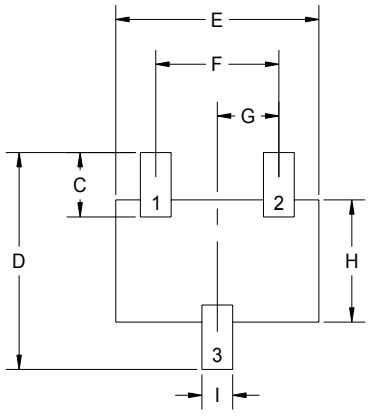
MECHANICAL OUTLINE - SOT-523

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.025	0.029	0.63	0.73
B	0.004	0.005	0.10	0.13
C	0.015	0.019	0.39	0.49
D	0.061	0.065	1.55	1.65
E	0.061	0.065	1.55	1.65
F	0.039	0.040	0.98	1.02
G	0.019	0.020	0.48	0.52
H	0.033	0.037	0.83	0.93
I	0.009	0.010	0.23	0.25

SOT-523 (REV: R1)



BOTTOM VIEW



R1

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

R0 (30-May 2001)