CMST2907A

SURFACE MOUNT
PNP SILICON TRANSISTOR

SUPERmini™



SOT-323 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMST2907A type is a PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a SUPERmini™ surface mount package, designed for small signal, general purpose and switching applications.

MARKING CODE: 2FC

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
Continuous Collector Current	I_C	600	mA
Power Dissipation	P_D	275	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	455	°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_{EB}=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		
f_T	V_{CE}=20V, I_C=50mA, f=100MHz	200		MHz

R4 (9-February 2010)

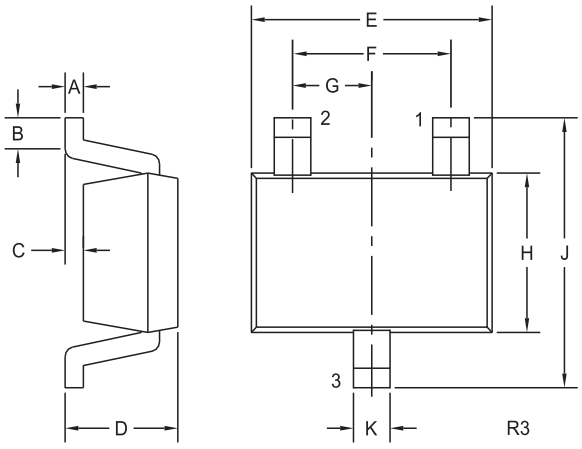
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ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C unless otherwise noted)

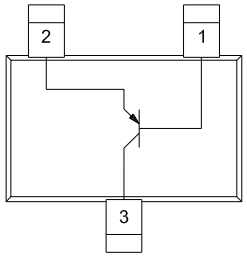
SYMBOL	TEST CONDITIONS	MAX	UNITS
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz	8.0	pF
C_{ib}	V_{EB}=2.0V, I_C=0, f=1.0MHz	30	pF
t_{on}	V_{CC}=30V, V_{BE}=0.5, I_C=150mA, I_{B1}=15mA	45	ns
t_d	V_{CC}=30V, V_{BE}=0.5, I_C=150mA, I_{B1}=15mA	10	ns
t_r	V_{CC}=30V, V_{BE}=0.5, I_C=150mA, I_{B1}=15mA	40	ns
t_{off}	V_{CC}=6.0V, 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

SOT-323 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.002	0.008	0.05	0.20
B	0.004	-	0.10	-
C	-	0.004	-	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.045	0.053	1.15	1.35
J	0.079	0.087	2.00	2.20
K	0.008	0.016	0.20	0.40

SOT-323 (REV: R3)



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

MARKING CODE: 2FC

R4 (9-February 2010)