CMST5086
CMST5087

SURFACE MOUNT
PNP SILICON TRANSISTOR

SUPERmini™



SOT-323 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMST5086, CMST5087 types are PNP silicon transistors manufactured by the epitaxial planar process, epoxy molded in a SUPERmini™ surface mount package, designed for applications requiring high gain and low noise.

MARKING CODES: CMST5086: 2PC
CMST5087: 2QC

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Continuous Collector Current	I_C	50	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)

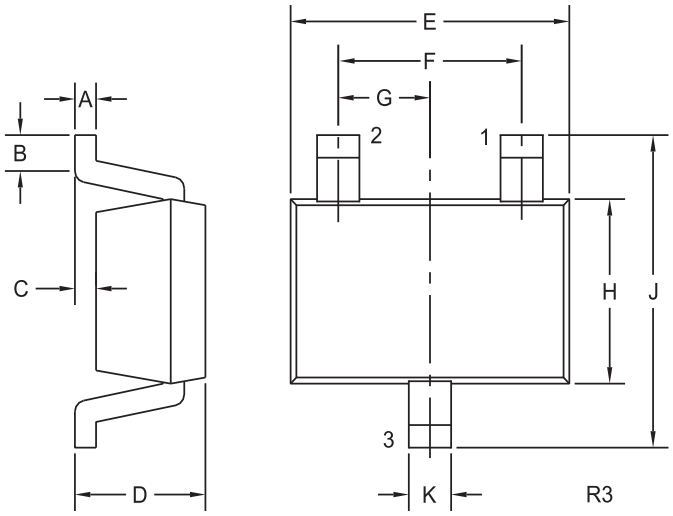
		CMST5086		**CMST5087**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=10V	-	10	-	10	nA
I_{CBO}	V_{CB}=35V	-	50	-	50	nA
BV_{CBO}	I_C=100µA	50	-	50	-	V
BV_{CEO}	I_C=1.0mA	50	-	50	-	V
BV_{EBO}	I_E=100µA	3.0	-	3.0	-	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA	-	0.30	-	0.30	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	-	0.85	-	0.85	V
h_{FE}	V_{CE}=5.0V, I_C=0.1mA	150	500	250	800	
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	150	-	250	-	
h_{FE}	V_{CE}=5.0V, I_C=10mA	150	-	250	-	
f_T	V_{CE}=5.0V, I_C=500µA, f=20MHz	40	-	40	-	MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz	-	4.0	-	4.0	pF
h_{fe}	V_{CE}=5.0V, I_C=1.0mA, f=1.0kHz	150	600	250	900	
NF	V_{CE}=5.0V, I_C=20mA, R_S=10kΩ f=10Hz to 15.7kHz	-	3.0	-	2.0	dB
NF	V_{CE}=5.0V, I_C=100µA, R_S=3.0kΩ f=1.0kHz	-	3.0	-	2.0	dB

R3 (9-February 2010)

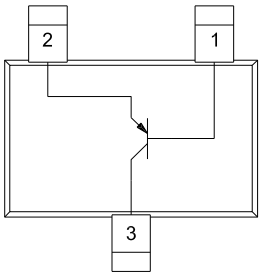
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SOT-323 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



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

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R3 (9-February 2010)