CMST5086
CMST5087

SURFACE MOUNT
SUPERmini™
PNP SILICON TRANSISTORS

SUPERmini™



SOT-323 CASE

Central™
Semiconductor Corp.

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
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

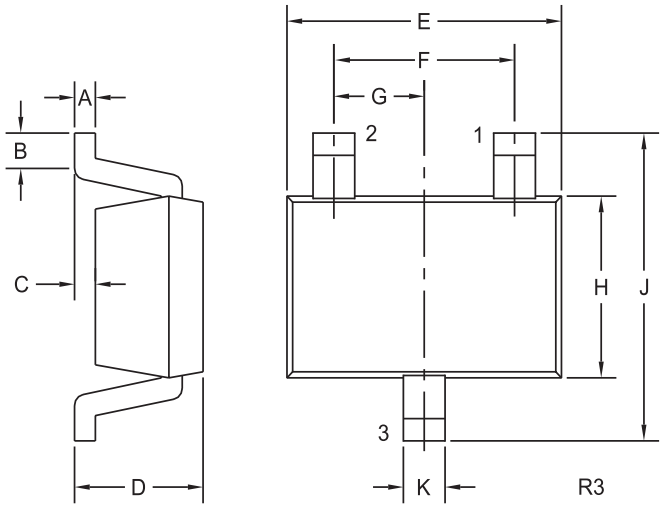
R2 (4-January 2004)

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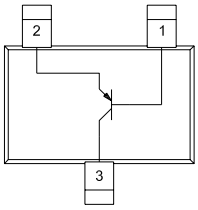
SOT-323 CASE - MECHANICAL OUTLINE



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)

CMST5086
CMST5087



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

MARKING CODE:
CMST5086 - 2PC
CMST5087 - 2QC

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