

CMST5086
CMST5087

**SURFACE MOUNT
PNP SILICON TRANSISTOR**

SUPERmini™



SOT-323 CASE



www.centrasemi.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)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V _{CB0}	50	V
V _{CEO}	50	V
V _{EBO}	3.0	V
I _C	50	mA
P _D	275	mW
T _J , T _{stg}	-65 to +150	°C
θ _{JA}	455	°C/W

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

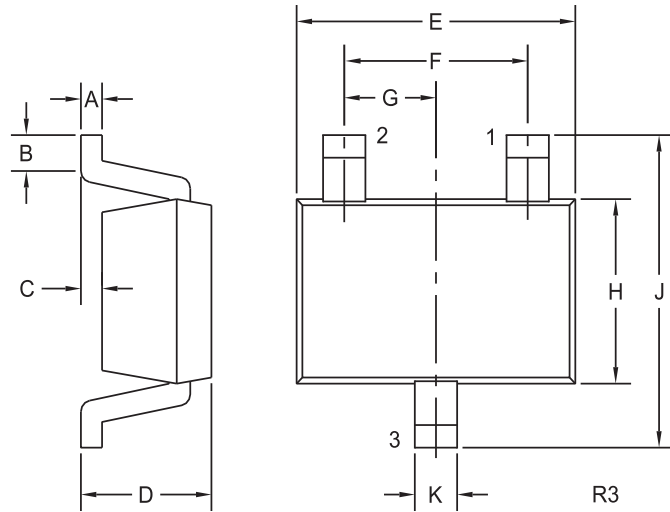
SYMBOL	TEST CONDITIONS	CMST5086		CMST5087		UNITS
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} =10V	-	10	-	10	nA
I _{CBO}	V _{CB} =35V	-	50	-	50	nA
BV _{CB0}	I _C =100μA	50	-	50	-	V
BV _{CEO}	I _C =1.0mA	50	-	50	-	V
BV _{EBO}	I _E =100μA	3.0	-	3.0	-	V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA	-	0.30	-	0.30	V
V _{BE(SAT)}	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)

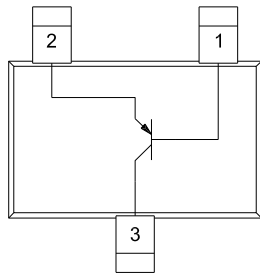
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SOT-323 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

- 1) Base
- 2) Emitter
- 3) Collector

MARKING CODES:

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 CMST5087: 2QC

SYMBOL	INCHES		MILLIMETERS	
	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)

R3 (9-February 2010)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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