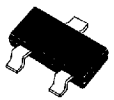
CMPT5088
CMPT5089

NPN SILICON TRANSISTORS



SOT-23 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT5088, CMPT5089 types are NPN silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring high gain and low noise.
Marking Codes are C1Q, C1R Respectively.

MAXIMUM RATINGS (T_A=25°C)

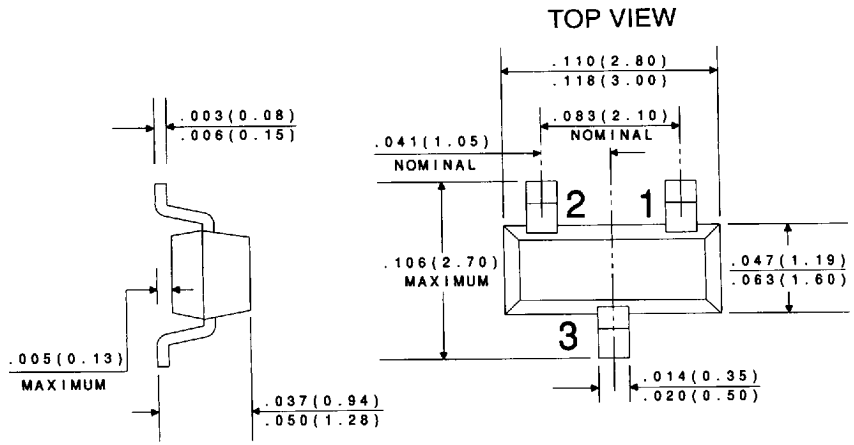
	SYMBOL	CMPT5088	CMPT5089	UNITS
Collector-Base Voltage	V_{CBO}	35	30	V
Collector-Emitter Voltage	V_{CEO}	30	25	V
Emitter-Base Voltage	V_{EBO}	4.5		V
Collector Current	I_C	50		mA
Power Dissipation	P_D	350		mW
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150		°C
Thermal Resistance	Θ_{JA}	357		°C/W

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

		CMPT5088		CMPT5089		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I_{CBO}	V_{CB}=20V		50		-	nA
I_{CBO}	V_{CB}=15V		-		50	nA
I_{EBO}	V_{EB}=3.0V		50		-	nA
I_{EBO}	V_{EB}=4.5V		-		100	nA
BV_{CBO}	I_C=100μA	35		30		V
BV_{CEO}	I_C=1.0mA	30		25		V
BV_{EBO}	I_E=100μA	4.5		4.5		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.5		0.5	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		0.8		0.8	V
h_{FE}	V_{CE}=5.0V, I_C=0.1mA	300	900	400	1200	
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	350		450		
h_{FE}	V_{CE}=5.0V, I_C=10mA	300		400		
f_T	V_{CE}=5.0V, I_C=500μA, f=20MHz	50		50		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz		4.0		4.0	pF

SYMBOL	TEST CONDITIONS	CMPT5088 MIN	CMPT5088 MAX	CMPT5089 MIN	CMPT5089 MAX	UNITS
C_{ib}	V_{BE}=0.5V, I_C=0, f=1.0MHz		10		10	pF
h_{fe}	V_{CE}=5.0V, I_C=1.0mA, f=1.0kHz	350	1400	450	1800	
NF	V_{CE}=5.0V, I_C=100μA, R_S=10kΩ f=10Hz to 15.7kHz		3.0		2.0	dB

All dimensions in inches (mm).



LEAD CODE:

1) BASE
2) EMITTER
3) COLLECTOR

DATA SHEET

R2