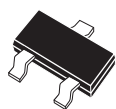


CMPH81
SURFACE MOUNT
PNP SILICON RF TRANSISTOR



SOT-23 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPH81 type is a PNP Silicon RF Transistor, epoxy molded in a surface mount package, designed for general RF amplifier applications.

Marking Code: C3D.

MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CB0}	20	V
Collector-Emitter Voltage	V_{CE0}	20	V
Emitter-Base Voltage	V_{EB0}	3.0	V
Collector Current (Continuous)	I_C	50	mA
Power Dissipation	P_D^*	225	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-55 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	556	$^{\circ}\text{C/W}$

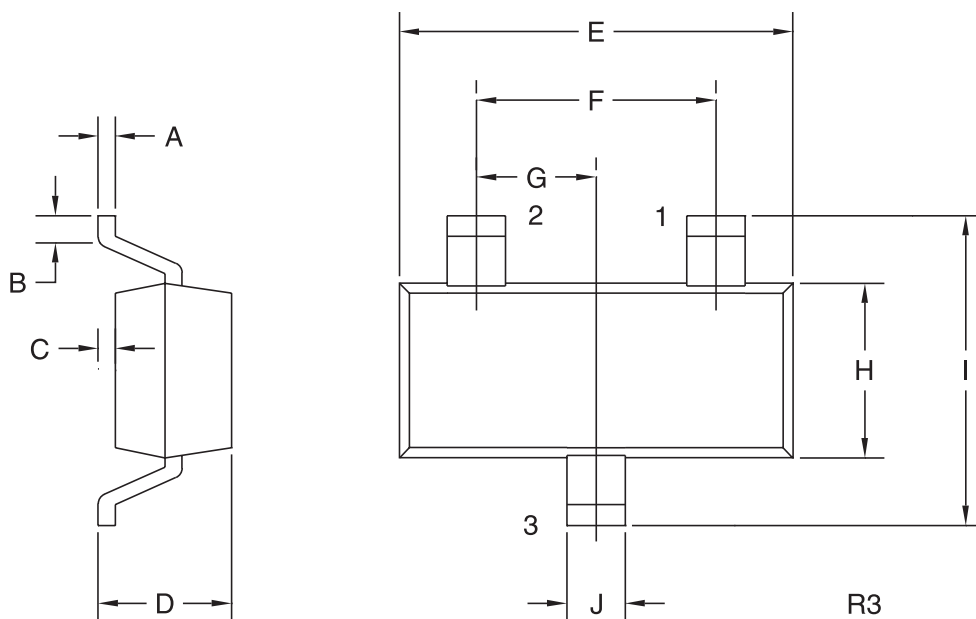
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ UNLESS OTHERWISE NOTED)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=10\text{V}$		100	nA
I_{EBO}	$V_{EB}=2.0\text{V}$		100	nA
BV_{CBO}	$I_C=10\mu\text{A}$	20		V
BV_{CEO}	$I_C=1.0\text{mA}$	20		V
BV_{EBO}	$I_E=10\mu\text{A}$	3.0		V
$V_{CE(SAT)}$	$I_C=5.0\text{mA}, I_B=500\mu\text{A}$		0.5	V
$V_{BE(ON)}$	$V_{CE}=10\text{V}, I_C=5.0\text{mA}$		0.9	V
h_{FE}	$V_{CE}=10\text{V}, I_C=5.0\text{mA}$	60		
f_T	$V_{CE}=10\text{V}, I_C=5.0\text{mA}, f=100\text{MHz}$	600		MHz
C_{cb}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		0.85	pF
C_{ce}	$V_{CB}=10\text{V}, I_B=0, f=1.0\text{MHz}$		0.65	pF

* FR-4 Epoxy PCB Substrate 1.6" x 1.6" x 0.06"

R2 (16-October 2002)

SOT-23 CASE- MECHANICAL OUTLINE



LEAD CODE:

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

MARKING CODE: C3D

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)