

CMPT2369

NPN SILICON TRANSISTOR



SOT-23 CASE

**Central**<sup>TM</sup>  
Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPT2369 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for ultra high speed switching applications.

Marking Code is C1J.

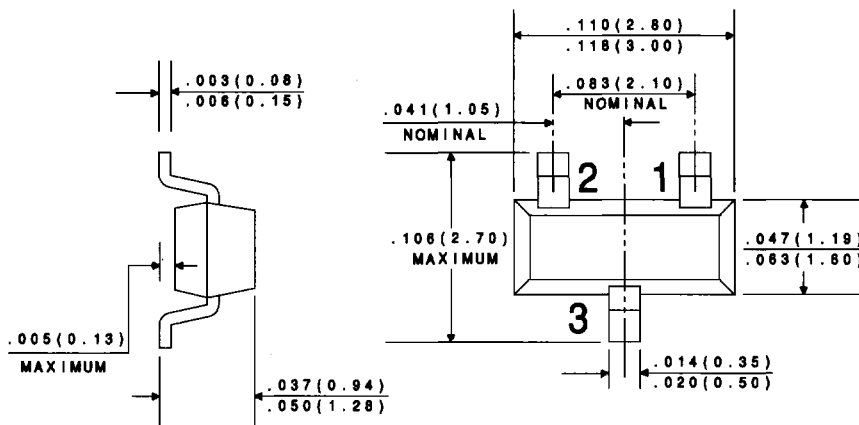
**MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ )

	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CES}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	4.5	V
Collector Current	$I_C$	500	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^{\circ}\text{C}/\text{W}$

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=20\text{V}$		0.4	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=20\text{V}, T_A=125^{\circ}\text{C}$		30	$\mu\text{A}$
$BV_{CBO}$	$I_C=10\mu\text{A}$	40		V
$BV_{CES}$	$I_C=10\mu\text{A}$	40		V
$BV_{CEO}$	$I_C=10\text{mA}$	15		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	4.5		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.25	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$	0.7	0.85	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=10\text{mA}$	40	120	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=100\text{mA}$	20		
$C_{ob}$	$V_{CB}=5.0\text{V}, I_E=0, f=1.0\text{MHz}$		4.0	pF
$f_T$	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	500		MHz
$t_s$	$V_{CC}=3.0\text{V}, I_C=I_{B1}=I_{B2}=10\text{mA}$		13	ns
$t_{on}$	$V_{CC}=3.0\text{V}, I_C=10\text{mA}, I_{B1}=3.0\text{mA}$		12	ns
$t_{off}$	$V_{CC}=3.0\text{V}, I_C=10\text{mA}, I_{B1}=3.0\text{mA}, I_{B2}=1.5\text{mA}$		18	ns

All dimensions in inches (mm).



LEAD CODE:

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

DATA  
SHEET

R2