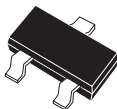


CMPT3640

PNP SILICON TRANSISTOR



SOT-23 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT3640 type is an PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for saturated switching applications.

Marking code is C2J.

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

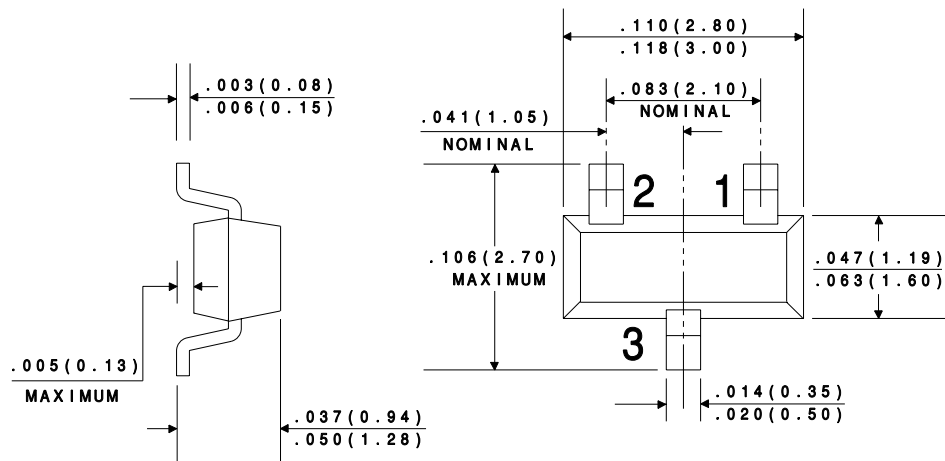
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	12	V
Collector-Emitter Voltage	V_{CEO}	12	V
Emitter-Base Voltage	V_{EBO}	4.0	V
Collector Current	I_C	80	mA
Power Dissipation	P_D	350	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	357	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CES}	$V_{CE}=6.0\text{V}$		10	nA
I_{CES}	$V_{CE}=6.0\text{V}, T_A=65^{\circ}\text{C}$		10	μA
I_B	$V_{CE}=6.0\text{V}, V_{EB}=0$		10	nA
BV_{CBO}	$I_C=100\mu\text{A}$	12		V
BV_{CEO}	$I_C=10\text{mA}$	12		V
BV_{EBO}	$I_E=100\mu\text{A}$	4.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.20	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		0.60	V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}, T_A=65^{\circ}\text{C}$		0.25	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$	0.75	0.95	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$	0.80	1.00	V
$V_{BE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		1.50	V
h_{FE}	$V_{CE}=0.3\text{V}, I_C=10\text{mA}$	30	120	

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{FE}	$V_{CE}=1.0V, I_C=50mA$	20		
f_T	$V_{CE}=5.0V, I_C=10mA, f=100MHz$	500		MHz
C_{ob}	$V_{CB}=5.0V, I_E=0, f=1.0MHz$		3.5	pF
C_{ib}	$V_{BE}=0.5V, I_C=0, f=1.0MHz$		3.5	pF
t_d	$V_{CC}=6.0V, V_{BE}=1.9, I_C=50mA, I_{B1}=5.0mA$		10	ns
t_r	$V_{CC}=6.0V, V_{BE}=1.9, I_C=50mA, I_{B1}=5.0mA$		30	ns
t_s	$V_{CC}=6.0V, I_C=50mA, I_{B1}=I_{B2}=5.0mA$		20	ns
t_f	$V_{CC}=6.0V, I_C=50mA, I_{B1}=I_{B2}=5.0mA$		12	ns
t_{on}	$V_{CC}=6.0V, V_{BE}=1.9, I_C=50mA, I_{B1}=5.0mA$		25	ns
t_{on}	$V_{CC}=1.5V, I_C=10mA, I_{B1}=0.5mA$		60	ns
t_{off}	$V_{CC}=6.0V, V_{BE}=1.9, I_C=50mA, I_{B1}=5.0mA$		35	ns
t_{off}	$V_{CC}=1.5V, I_C=10mA, I_{B1}=I_{B2}=0.5mA$		75	ns

All dimensions in inches (mm).



LEAD CODE:

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