CMPT4401 NPN
CMPT4403 PNP

COMPLEMENTARY SILICON TRANSISTORS

SOT-23 CASE

Central™ Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT4401, CMPT4403 types are complementary silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for small signal general purpose amplifier and switching applications.
Marking Codes are C2X, C2T Respectively.

MAXIMUM RATINGS (T_A=25°C)

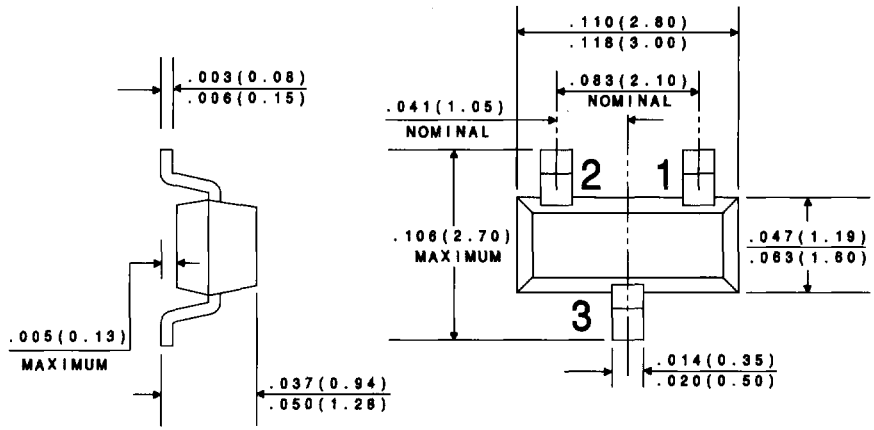
	SYMBOL	CMPT4401	CMPT4403	UNITS
Collector-Base Voltage	V_{CBO}	60	40	V
Collector-Emitter Voltage	V_{CEO}	40	40	V
Emitter-Base Voltage	V_{EBO}	6.0	5.0	V
Collector Current	I_C	600		mA
Power Dissipation	P_D	350		mW
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150		°C
Thermal Resistance	Θ_{JA}	357		°C/W

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

		CMPT4401		CMPT4403		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I_{CEV}	V_{CE}=35V, V_{EB}=0.4V		0.1		0.1	μA
I_{BEV}	V_{CE}=35V, V_{EB}=0.4V		0.1		0.1	μA
BV_{CBO}	I_C=100μA	60		40		V
BV_{CEO}	I_C=1.0mA	40		40		V
BV_{EBO}	I_E=100μA	6.0		5.0		V
$V_{CE(SAT)}$	I_C=150mA, I_B=15mA		0.40		0.40	V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.75		0.75	V
$V_{BE(SAT)}$	I_C=150mA, I_B=15mA	0.75	0.95	0.75	0.95	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA		1.2		1.3	V
h_{FE}	V_{CE}=1.0V, I_C=0.1mA	20		30		
h_{FE}	V_{CE}=1.0V, I_C=1.0mA	40		60		
h_{FE}	V_{CE}=1.0V, I_C=10mA	80		100		

SYMBOL	TEST CONDITIONS	CMPT4401 MIN	CMPT4401 MAX	CMPT4403 MIN	CMPT4403 MAX	UNITS
h_{FE}	V_{CE}=1.0V, I_C=150mA	100	300	-	-	
h_{FE}	V_{CE}=2.0V, I_C=150mA	-	-	100	300	
h_{FE}	V_{CE}=2.0V, I_C=500mA	40		20		
f_T	V_{CE}=10V, I_C=20mA, f=100MHz	250		200		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz		6.5		8.5	pF
C_{ib}	V_{BE}=0.5V, I_C=0, f=1.0MHz		30		30	pF
h_{ie}	V_{CE}=10V, I_C=1.0mA, f=1.0kHz	1.0	15	1.5	15	kΩ
h_{re}	V_{CE}=10V, I_C=1.0mA, f=1.0kHz	0.1	8.0	0.1	8.0	$x10^{-4}$
h_{fe}	V_{CE}=10V, I_C=1.0mA, f=1.0kHz	40	500	60	500	
h_{oe}	V_{CE}=10V, I_C=1.0mA, f=1.0kHz	1.0	30	1.0	100	μmhos
t_d	V_{CC}=30V, V_{BE}=2.0, I_C=150mA, I_{B1}=15mA		15		15	ns
t_r	V_{CC}=30V, V_{BE}=2.0, I_C=150mA, I_{B1}=15mA		20		20	ns
t_s	V_{CC}=30V, I_C=150mA, I_{B1}=I_{B2}=15mA		225		225	ns
t_f	V_{CC}=30V, I_C=150mA, I_{B1}=I_{B2}=15mA		30		30	ns

All dimensions in inches (mm).



LEAD CODE:

1) BASE
2) EMITTER
3) COLLECTOR

R2

DATA SHEET