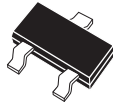


CMPTA06 NPN  
CMPTA56 PNP

SURFACE MOUNT  
COMPLEMENTARY  
SILICON TRANSISTORS



SOT-23 CASE

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPTA06, CMPTA56 types are complementary silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for small signal general purpose and switching applications.

**MARKING CODES: CMPTA06 : C1G  
CMPTA56 : C2G**

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

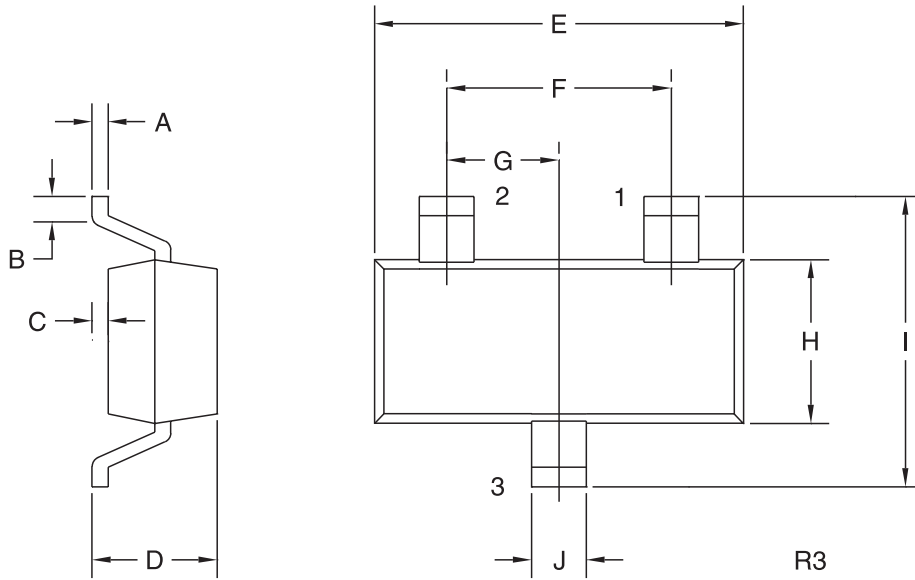
	SYMBOL		UNITS
Collector-Base Voltage	$V_{CB0}$	80	V
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	4.0	V
Collector Current	$I_C$	500	mA
Base Current	$I_B$	100	mA
Peak Base Current	$I_{BM}$	200	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=80\text{V}$		100	nA
$I_{CBO}$	$V_{CB}=80\text{V}, T_A=150^\circ\text{C}$		20	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=60\text{V}$		100	nA
$BV_{CEO}$	$I_C=1.0\text{mA}$	80		V
$BV_{EBO}$	$I_E=100\mu\text{A}$	4.0		V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.25	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=100\text{mA}$		1.20	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=10\text{mA}$	100		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=100\text{mA}$	100		
$f_T$	$V_{CE}=2.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$ (CMPTA06)	100		MHz
$f_T$	$V_{CE}=1.0\text{V}, I_C=100\text{mA}, f=100\text{MHz}$ (CMPTA56)	50		MHz

R5 (13-November 2002)

**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE:**

CMPTA06: C1G  
CMPTA56: C2G

SYMBOL	DIMENSIONS		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)