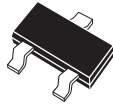


CMPT6517 NPN
CMPT6520 PNP

COMPLEMENTARY SILICON
HIGH VOLTAGE TRANSISTORS



SOT-23 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT6517, CMPT6520 types are complementary silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high voltage driver and amplifier applications.

MARKING CODE:

CMPT6517: C1Z
CMPT6520: C2Z

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

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	350	V
Collector-Emitter Voltage	V_{CEO}	350	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	500	mA
Base Current	I_B	250	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_{CBO}	$V_{CB}=250\text{V}$		50	nA
I_{EBO}	$V_{EB}=5.0\text{V}$ (CMPT6517)		50	nA
I_{EBO}	$V_{EB}=4.0\text{V}$ (CMPT6520)		50	nA
BV_{CBO}	$I_C=100\mu\text{A}$	350		V
BV_{CEO}	$I_C=1.0\text{mA}$	350		V
BV_{EBO}	$I_E=10\mu\text{A}$ (CMPT6517)	6.0		V
BV_{EBO}	$I_E=10\mu\text{A}$ (CMPT6520)	5.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.30	V
$V_{CE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$		0.35	V
$V_{CE(SAT)}$	$I_C=30\text{mA}, I_B=3.0\text{mA}$		0.50	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		1.0	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.75	V
$V_{BE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$		0.85	V
$V_{BE(SAT)}$	$I_C=30\text{mA}, I_B=3.0\text{mA}$		0.90	V
$V_{BE(ON)}$	$I_C=10\text{V}, I_C=100\text{mA}$		2.0	V
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	20		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	30		

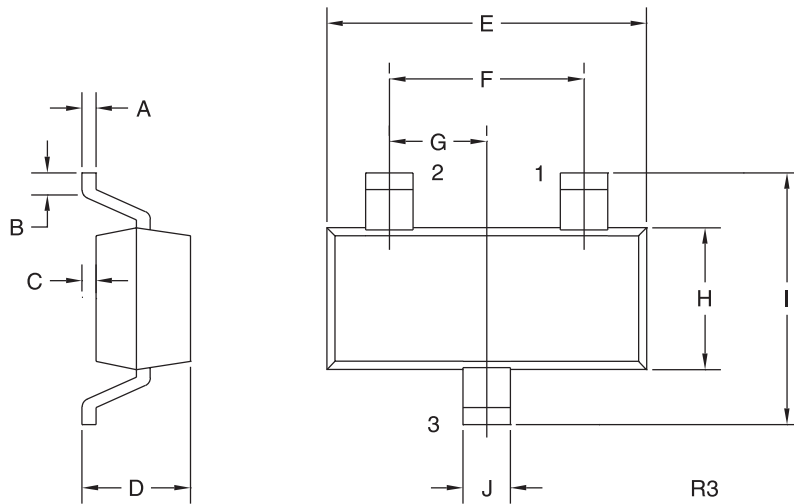
R4 (26-September 2002)

**COMPLEMENTARY SILICON
HIGH VOLTAGE TRANSISTORS**

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{FE}	$V_{CE}=10\text{V}, I_C=30\text{mA}$	30	200	
h_{FE}	$V_{CE}=10\text{V}, I_C=50\text{mA}$	20	200	
h_{FE}	$V_{CE}=10\text{V}, I_C=100\text{mA}$	15		
f_T	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=20\text{MHz}$	40	200	MHz
C_{cb}	$V_{CB}=20\text{V}, I_C=0, f=1.0\text{MHz}$		6.0	pF
C_{eb}	$V_{EB}=0.5\text{V}, I_E=0, f=1.0\text{MHz}$ (CMPT6517)		80	pF
C_{eb}	$V_{EB}=0.5\text{V}, I_E=0, f=1.0\text{MHz}$ (CMPT6520)		100	pF

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:

CMPT6517: C1Z
CMPT6520: C2Z

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)