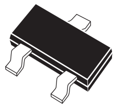
CMPT6517 NPN
CMPT6520 PNP

COMPLEMENTARY SILICON HIGH VOLTAGE TRANSISTORS



SOT-23 CASE

Central™
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°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	°C
Thermal Resistance	Θ_{JA}	357	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=250V		50	nA
I_{EBO}	V_{EB}=5.0V (CMPT6517)		50	nA
I_{EBO}	V_{EB}=4.0V (CMPT6520)		50	nA
BV_{CBO}	I_C=100µA	350		V
BV_{CEO}	I_C=1.0mA	350		V
BV_{EBO}	I_E=10µA (CMPT6517)	6.0		V
BV_{EBO}	I_E=10µA (CMPT6520)	5.0		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.30	V
$V_{CE(SAT)}$	I_C=20mA, I_B=2.0mA		0.35	V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA		0.50	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		1.0	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		0.75	V
$V_{BE(SAT)}$	I_C=20mA, I_B=2.0mA		0.85	V
$V_{BE(SAT)}$	I_C=30mA, I_B=3.0mA		0.90	V
$V_{BE(ON)}$	I_C=10V, I_C=100mA		2.0	V
h_{FE}	V_{CE}=10V, I_C=1.0mA	20		
h_{FE}	V_{CE}=10V, I_C=10mA	30		

R4 (26-September 2002)

Central™
Semiconductor Corp.

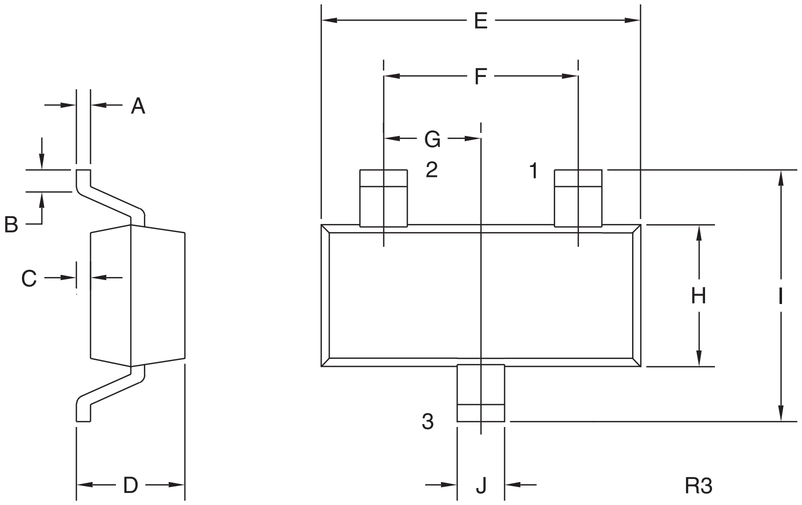
CMPT6517 NPN
CMPT6520 PNP

COMPLEMENTARY SILICON HIGH VOLTAGE TRANSISTORS

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

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

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) BASE
2) EMITTER
3) COLLECTOR

MARKING CODE:
CMPT6517: C1Z
CMPT6520: C2Z

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

R4 (26-September 2002)