

CMPTA13 CMPTA14 NPN
 CMPTA63 CMPTA64 PNP

**SURFACE MOUNT
 COMPLEMENTARY SILICON
 DARLINGTON TRANSISTORS**



SOT-23 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPTA13 and CMPTA63 series are complementary silicon darlington transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring extremely high gain.

MARKING CODES: CMPTA13: C1M
 CMPTA14: C1N
 CMPTA63: C2U
 CMPTA64: C2V

MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CES}	30	V
Emitter-Base Voltage	V _{EBO}	10	V
Continuous Collector Current	I _C	500	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 _{CB0}	V _{CB} =30V		100	nA
I _{EBO}	V _{BE} =10V		100	nA
BV _{CES}	I _C =100μA	30		V
V _{CE(SAT)}	I _C =100mA, I _B =0.1mA		1.5	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =100mA		2.0	V
h _{FE}	V _{CE} =5.0V, I _C =10mA (CMPTA13, CMPTA63)	5,000		
h _{FE}	V _{CE} =5.0V, I _C =10mA (CMPTA14, CMPTA64)	10,000		
h _{FE}	V _{CE} =5.0V, I _C =100mA (CMPTA13, CMPTA63)	10,000		
h _{FE}	V _{CE} =5.0V, I _C =100mA (CMPTA14, CMPTA64)	20,000		
f _T	V _{CE} =5.0V, I _C =10mA, f=100MHz	125		MHz

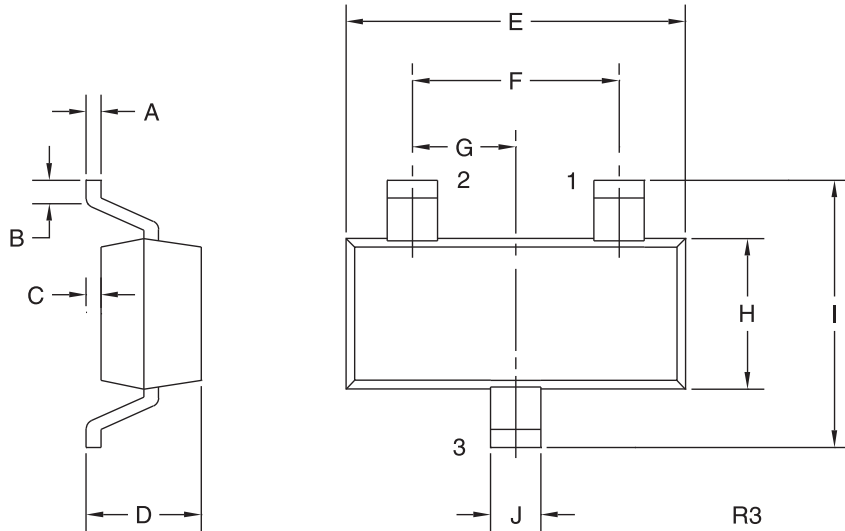
R5 (1-February 2010)

CMPTA13 CMPTA14 NPN
 CMPTA63 CMPTA64 PNP



**SURFACE MOUNT
 COMPLEMENTARY SILICON
 DARLINGTON TRANSISTORS**

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Emitter
- 3) Collector

MARKING CODES:

CMPTA13: C1M
 CMPTA14: C1N
 CMPTA63: C2U
 CMPTA64: C2V

DIMENSIONS				
SYMBOL	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)

R5 (1-February 2010)