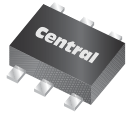
CMLT5551HC

SURFACE MOUNT
HIGH CURRENT
SILICON NPN TRANSISTOR

PICOmini™



SOT-563 CASE

Central™
Semiconductor Corp.
www.centralsemi.com

DESCRIPTION:
The CENTRAL SEMICONDUCTOR CMLT5551HC type is a high current NPN silicon transistor, manufactured by the epitaxial planar process and epoxy molded in an SOT-563 suface mount package. This PICOmini™ device has been designed for high voltage and high current amplifier applications.

MARKING CODE: C51

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continuous Collector Current	I_C	1.0	A
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**	**TYP**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=120V			50	nA
I_{CBO}	V_{CB}=120V, T_A=100°C			50	µA
I_{EBO}	V_{EB}=4.0V			50	nA
BV_{CBO}	I_C=100µA	180			V
BV_{CEO}	I_C=1.0mA	160			V
BV_{EBO}	I_E=10µA	6.0			V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA			0.15	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA			0.20	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA			1.00	V
$V_{BE(SAT)}$	I_C=50mA, I_B=5.0mA			1.00	V
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	80			
h_{FE}	V_{CE}=5.0V, I_C=10mA	80		250	
h_{FE}	V_{CE}=5.0V, I_C=50mA	30			
h_{FE}	V_{CE}=10V, I_C=1.0A		10		
f_T	V_{CE}=10V, I_C=10mA, f=100MHz	100			MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz			15	pF

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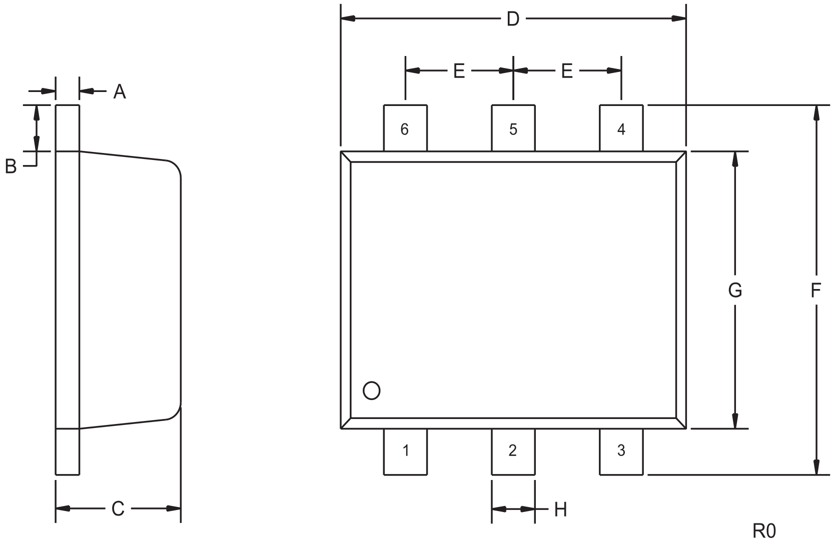
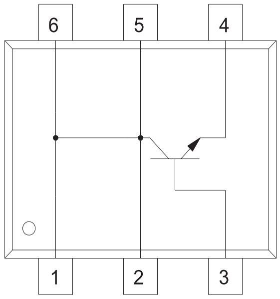
SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

LEAD CODE:
1) Collector
2) Collector
3) Base
4) Emitter
5) Collector
6) Collector

MARKING CODE: C51

R1 (20-January 2010)