

## Descriptions

Double silicon PNP transistor in a SOT-363 Plastic Package.

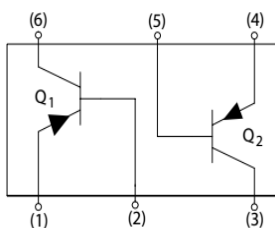
## Features

High voltage, complementary Pair with MMBT5551DW.

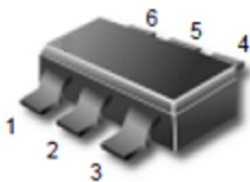
## Applications

General purpose high voltage amplifier.

## Equivalent Circuit



## Pinning



PIN 1、 4 : Emitter

PIN 2、 5 : Base

PIN 3、 6 : Collector

## $h_{FE}$ Classifications & Marking

See Marking Instructions.

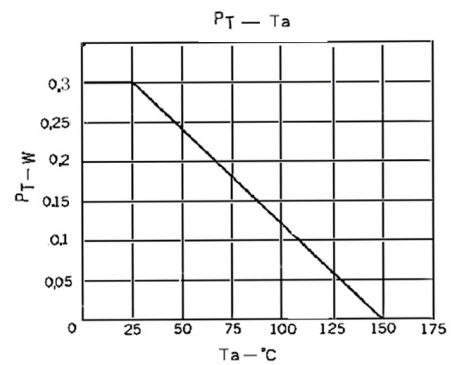
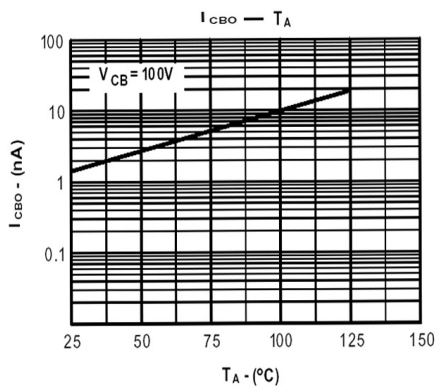
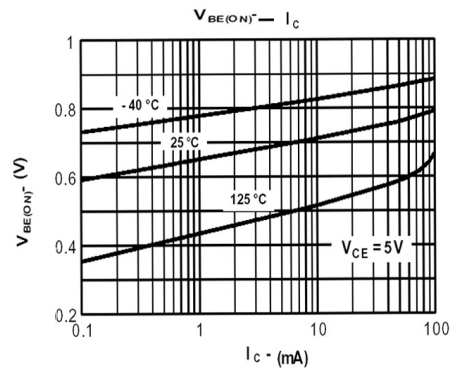
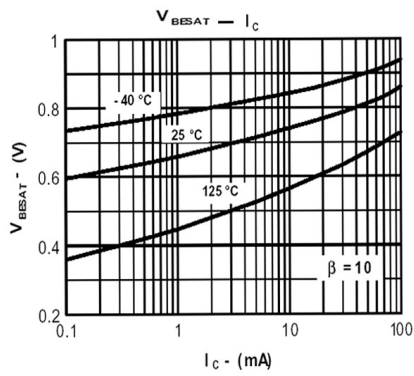
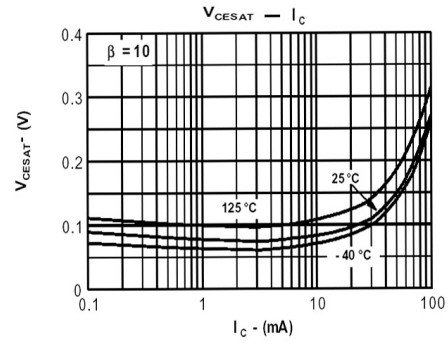
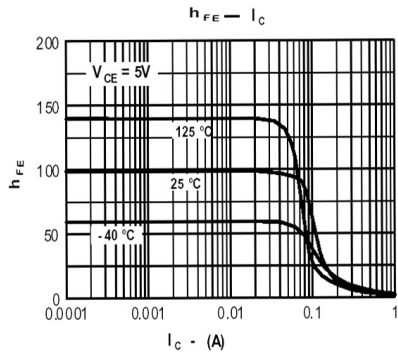
**Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-180	V
Collector to Emitter Voltage	$V_{CEO}$	-160	V
Emitter to Base Voltage	$V_{EBO}$	-6.0	V
Collector Current	$I_C$	-600	mA
Base Current	$I_B$	-300	mA
Collector Power Dissipation	$P_C$	300	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

**Electrical Characteristics(Ta=25°C)**

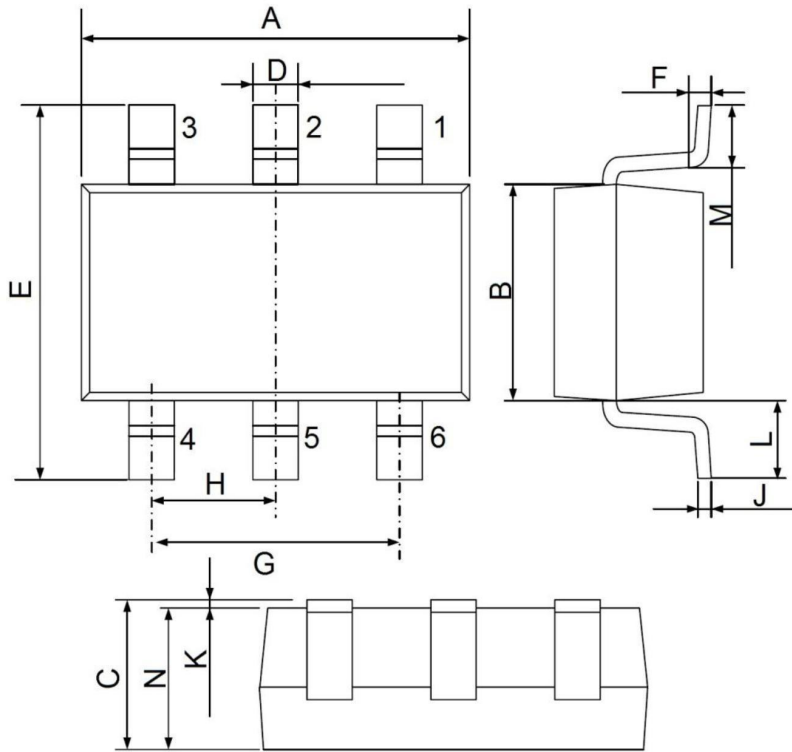
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-180V$ $I_E=0$			-0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-6.0V$ $I_C=0$			-0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-5.0V$ $I_C=-10mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=-5.0V$ $I_C=-50mA$	20	70		
	$h_{FE(3)}$	$V_{CE}=-5.0V$ $I_C=-1.0mA$	40	180		
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-10mA$ $I_B=-1.0mA$		-0.12	-0.4	V
	$V_{CE(sat)(2)}$	$I_C=-50mA$ $I_B=-5.0mA$		-0.5	-0.8	V
Base-Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-10mA$ $I_B=-1.0mA$		-0.75	-1.0	V
	$V_{BE(sat)(2)}$	$I_C=-50mA$ $I_B=-5.0mA$		-0.8	-1.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=-5.0V$ $I_C=-10mA$		-0.7	-0.75	V
Transition Frequency	$f_T$	$V_{CE}=-10V$ $I_C=-10mA$	100		200	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-10V$ $I_E=0$ $f=10MHz$		2.5	5.0	pF
Turn-on Time	$t_{on}$	$I_C=-100mA$ $-I_{B1}=I_{B2}=-10mA$		0.1		$\mu s$
Storage Time	$t_{off}$			0.2		$\mu s$
Fall Time	$t_{stg}$			0.1		$\mu s$

Electrical Characteristic Curve



Package Dimensions

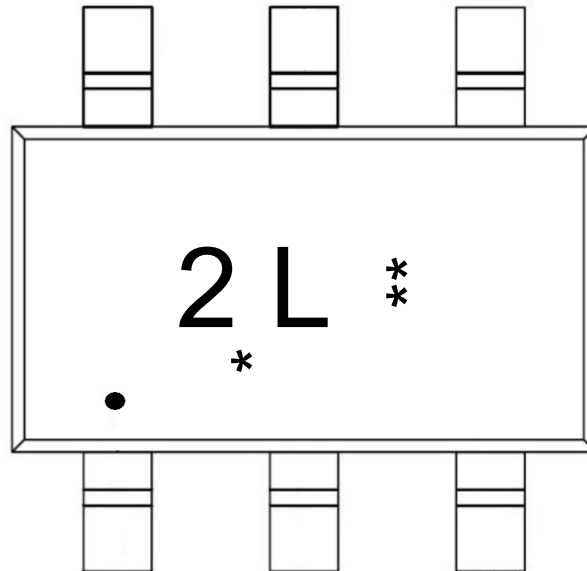
SOT-363-6L



UNIT: mm

DIM	MIN	MAX
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	2.15	2.45
F	0.20 Typ.	
G	1.20	1.40
H	0.65 Typ.	
J	0.08	0.15
K	0.00	0.10
L	0.525 Ref.	
M	0.26	0.46
N	0.90	1.00

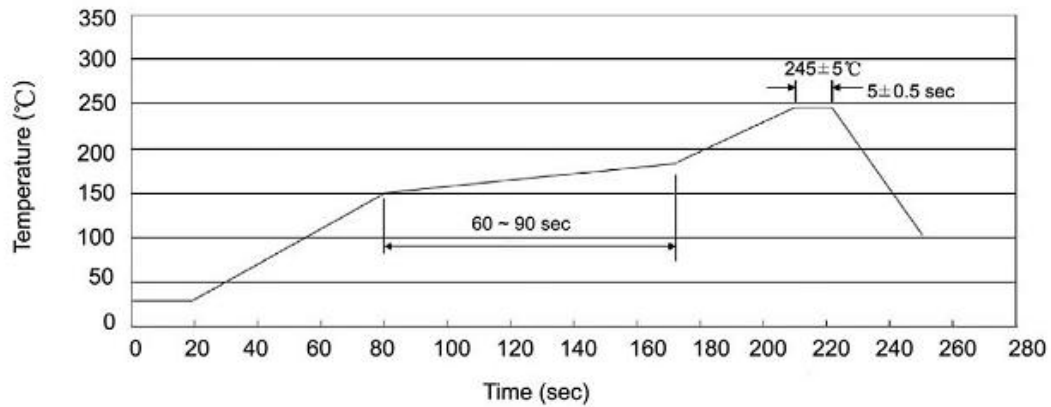
Marking Instructions



Note:

- : "1" Pin
- 2L : Product Type Code
- \*\*\*: Lot No. Code, code change with Lot No.

**Temperature Profile for IR Reflow Soldering(Pb-Free)**



Note:

1. Preheating: 150~180°C, Time: 60~90sec.
2. Peak Temp.: 245±5°C, Duration: 5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**Resistance to Soldering Heat Test Conditions**

Temp.: 260±5°C Time: 10±1 sec