

## 自主封測 品質把控 售後保障

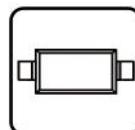
WEB | [WWW.TDSEMIC.COM](http://WWW.TDSEMIC.COM)



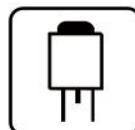
電源管理



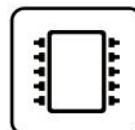
顯示驅動



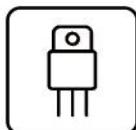
二三極管



LDO穩壓器



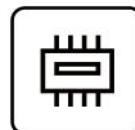
觸摸芯片



MOS管



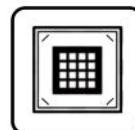
運算放大器



存儲芯片



MCU



串口通信

**MMBT5551 G1-TD (0.42)**

產品規格說明書

## FEATURES:

- ※ Complementary to MMBT5401
- ※ Collector Current:  $I_c=0.6A$
- ※ Ideal for Medium Power Amplification and Switching

## MARKING:G1

### MAXIMUM RATINGS ( $T_a=25^\circ C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	180	V
Collector-Emitter Voltage	$V_{CEO}$	160	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	600	mA
Collector Power Dissipation	$P_C$	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	416	$^\circ C/W$
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55~+150	$^\circ C$

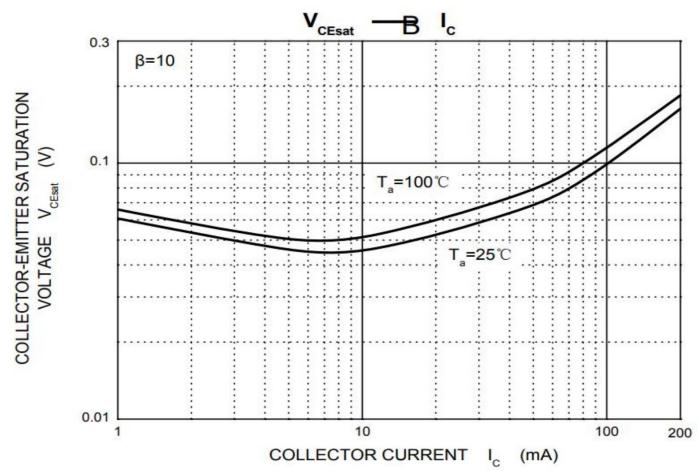
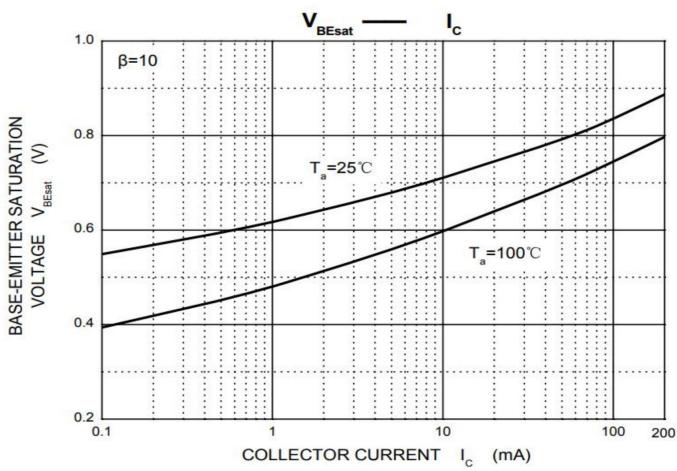
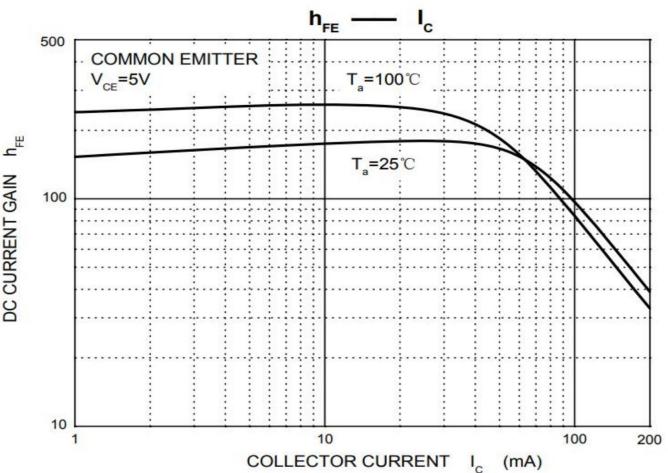
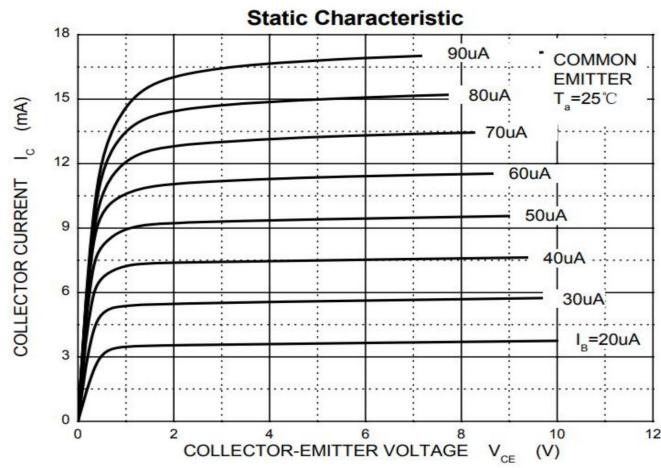
### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C= 100\mu A, I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C= 1mA, I_B=0$	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E= 10\mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}= 120 V, I_E=0$			50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}= 4V, I_C=0$			50	nA
DC current gain	hFE	$V_{CE}=5V, I_C= 1mA$	80			
	hFE	$V_{CE}=5V, I_C= 10mA$	100		250	
	hFE	$V_{CE}=5V, I_C= 50mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10 mA, I_B= 1mA$			0.15	V
		$I_C=50 mA, I_B= 5mA$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10 mA, I_B= 1mA$			1	V
		$I_C=50 mA, I_B= 5mA$			1	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C= 10mA$ $f=100MHz$	100		300	MHz
Collector Current Capacitance	$C_{od}$	$V_{CB}= 10V, I_E=0, f=1MHz$			6	pF

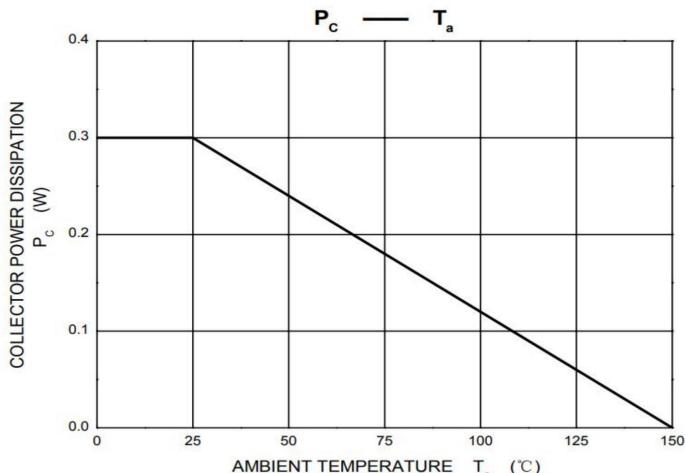
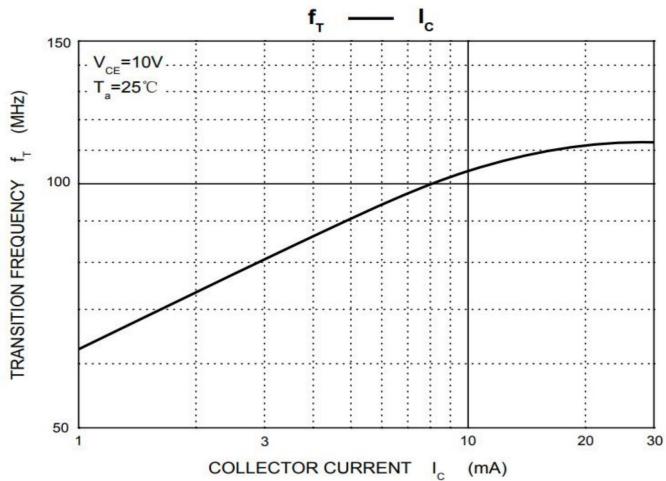
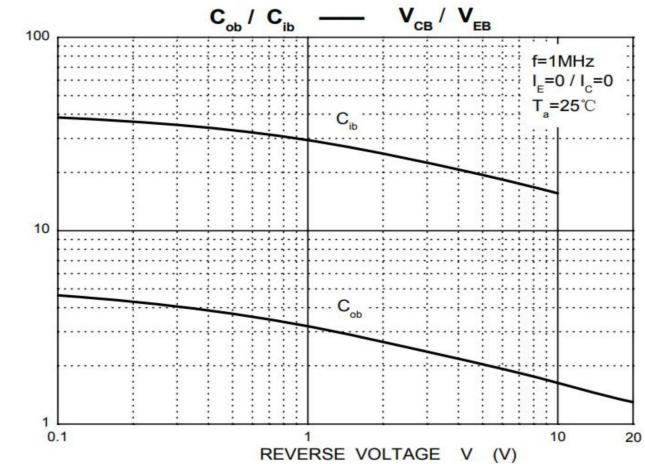
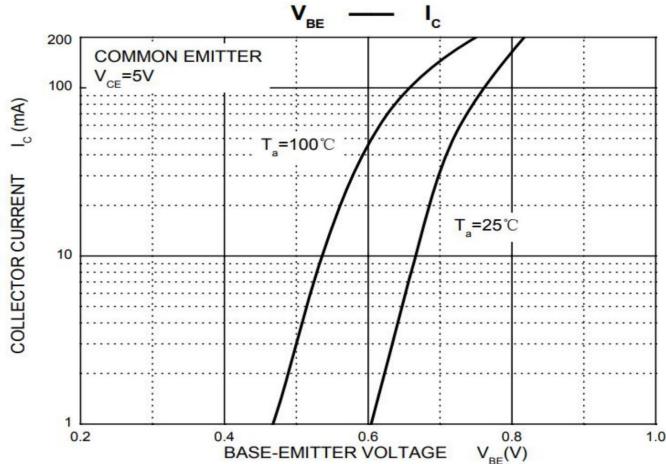
### CLASSIFICATION OF hFE

Rank	L	H
Range	100-200	200-300

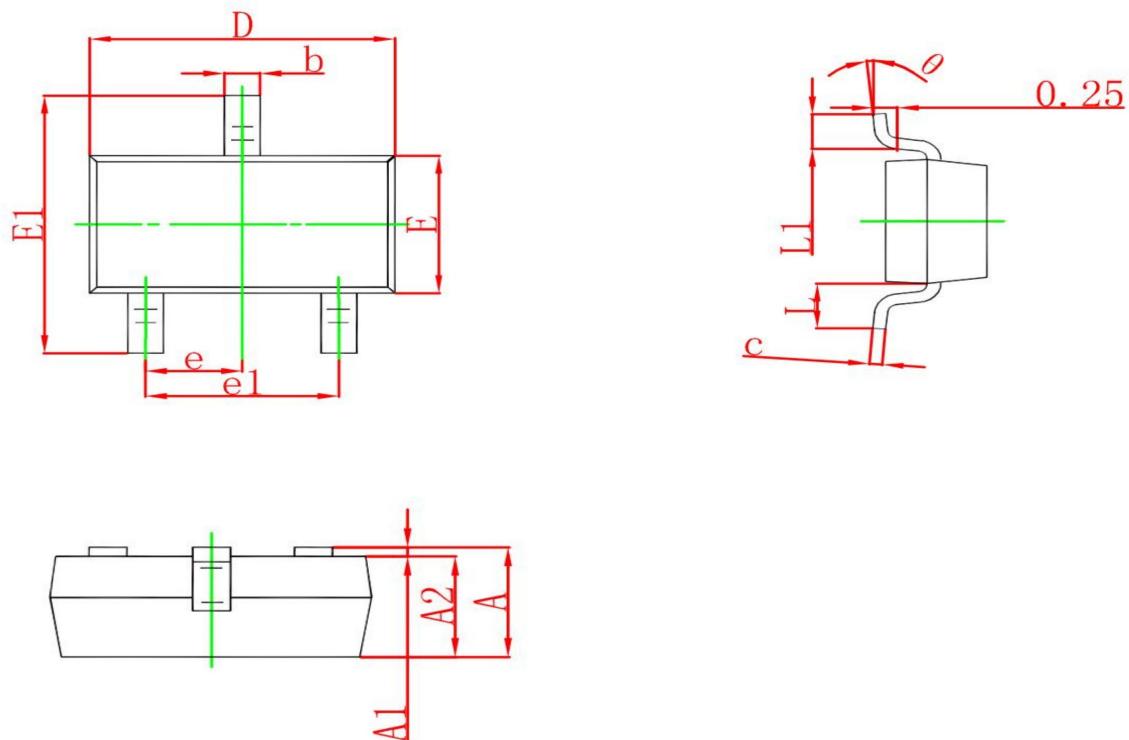
## Typical Electrical and Thermal Characteristics



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## SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
$\theta$	0°	8°	0°	8°