SINLOON®

雙極型晶體管

MMBT5550

SOT-23 NPN General Purpose Amplifier

☐ **FEATURE:**

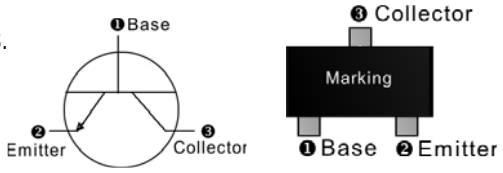
◆ Power Dissipation
◆ This device is designed for general purpose high voltage amplifiers and gas discharge display drivers.

Figure

☐ **MECHANICAL CHARACTERISTICS:**

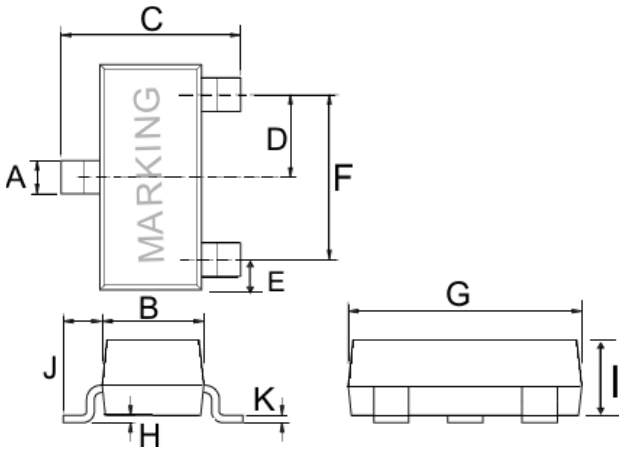
◆ Case: SOT-23 Molded Plastic
◆ Weight: 0.01 Grams (approx)
◆ Marking: Body top
◆ Terminals: Plated leads solderable per MIL-STD-202, Method 208.
◆ Mounting: Position any

☐ SOT-23 MMBT555(Top View



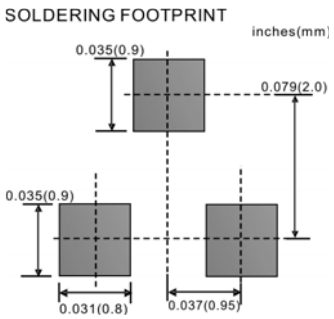
☐ **DIMENSION:** mm

SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.4
C	2.1	2.5
D	0.89	1.05
E	0.45	0.61
F	1.78	2.05
G	2.65	3.05
H	0.013	0.15
I	0.89	1.1
J	0.45	0.61
K	0.076	0.178



☐ **Maximum Ratings** @T_A=25℃ unless otherwise noted

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	140	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	600	mA
CollectorPower Dissipation	P_C	225	mW
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55~150	℃
Thermal Resistance From Junction to Ambient	$T_{\theta JA}$	556	℃/W



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☐ **Electrical Characteristics** T_{amb}=25℃ unless otherwise specified

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Collector-Base Breakdown voltage	$V(BR)_{CBO}$	I_C=0.1mA,I_E=0	160	---	V
Collector-Emitter Breakdown voltage	$V(BR)_{CEO*}$	I_C=1mA,I_B=0	140	---	V
Emitter-Base Breakdown voltage	$V(BR)_{EBO}$	I_E=0.01mA,I_C=0	6	---	V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0	---	0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0	---	50	nA
DC Current gain	$h_{FE(1)}$	V_{CE}=5V,I_C=1mA	60	---	
	$h_{FE(2)}$	V_{CE}=5V,I_C=10mA	60	250	
	$h_{FE(3)}$	V_{CE}=5V,I_C=50mA	20	---	
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=10mA,I_B=1mA	---	0.15	V
	$V_{CE(sat)2}$	I_C=50mA,I_B=5mA	---	0.25	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	I_C=10mA,I_B=1mA	---	1	V
	$V_{BE(sat)2}$	I_C=50mA,I_B=5mA	---	1.2	V

* Pulse Test: Pulse width ≦300μs, duty cycle ≦2%

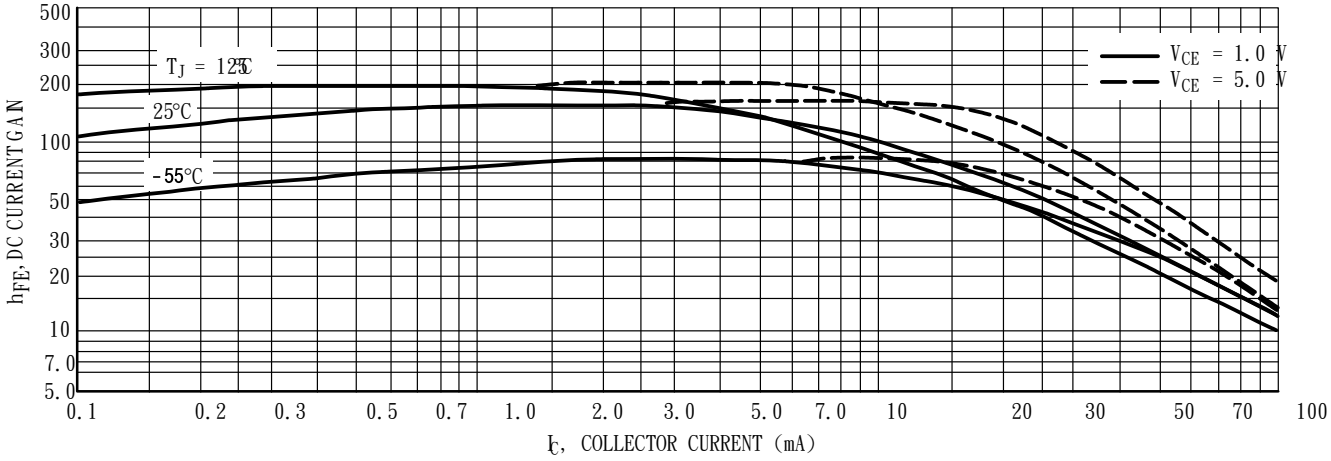

Figure 1. DC Current Gain

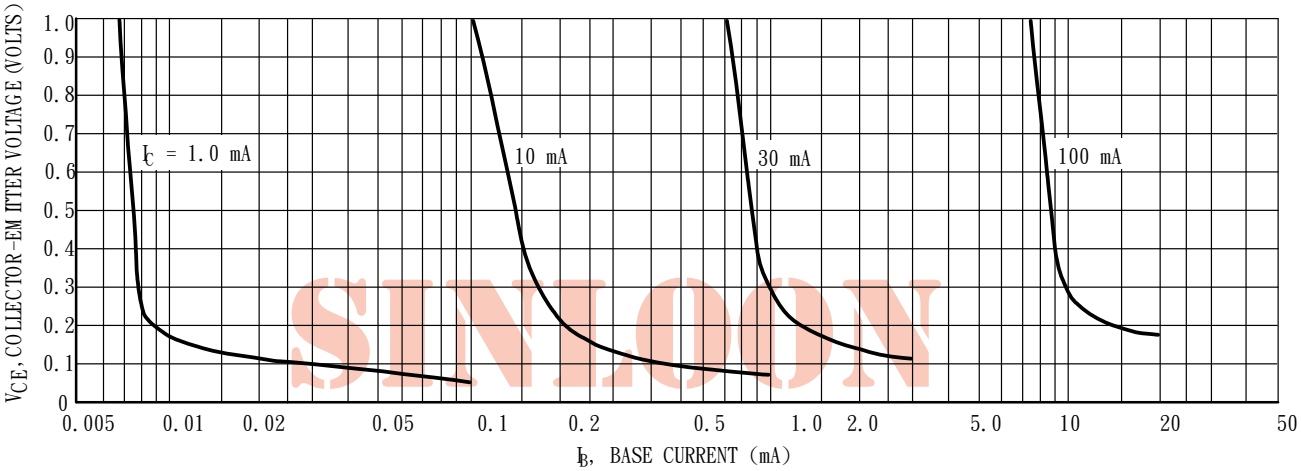

Figure 2. Collector Saturation Region

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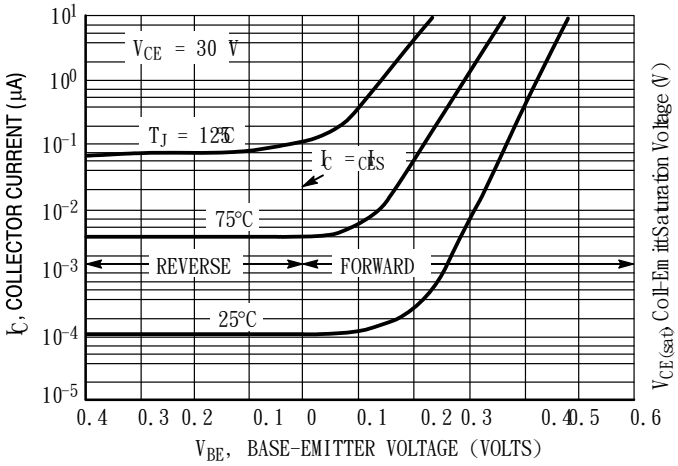

Figure 3. Collector Cut-Off Region

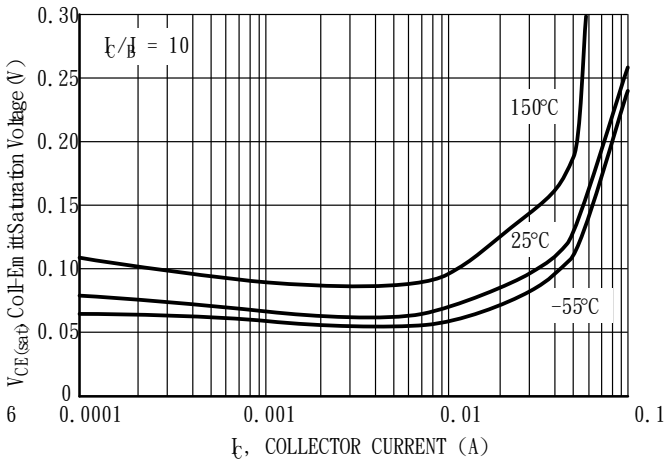

Figure 4. $V_{CE(sat)}$

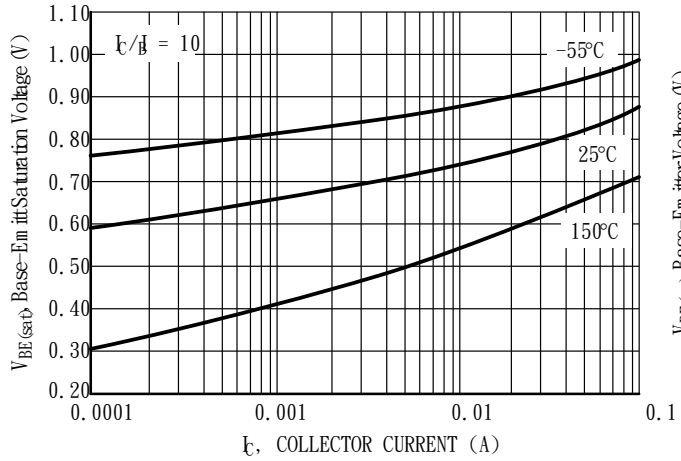

Figure 5. $V_{BE(sat)}$

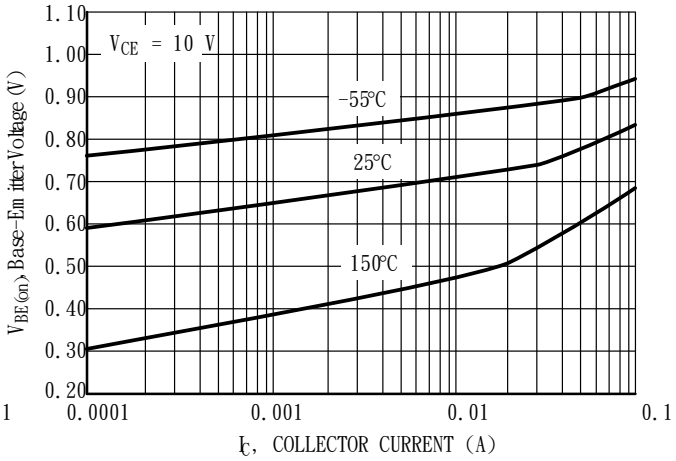

Figure 6. $V_{BE(on)}$

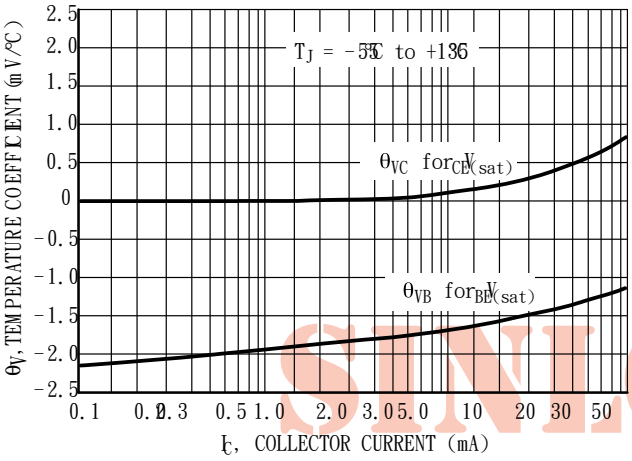

Figure 7. Temperature Coefficients

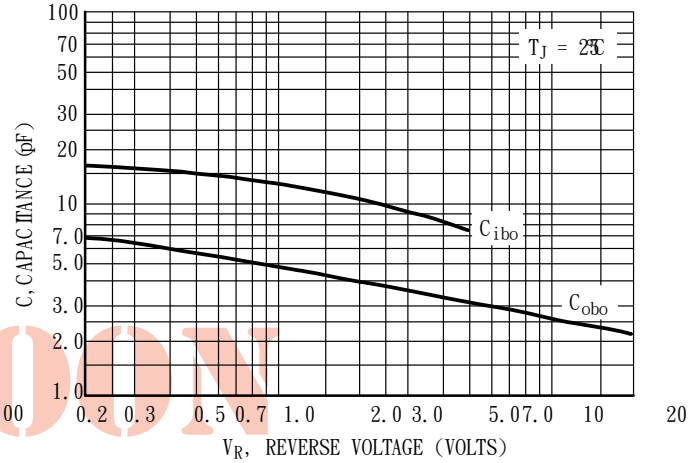

Figure 8. Capacitances

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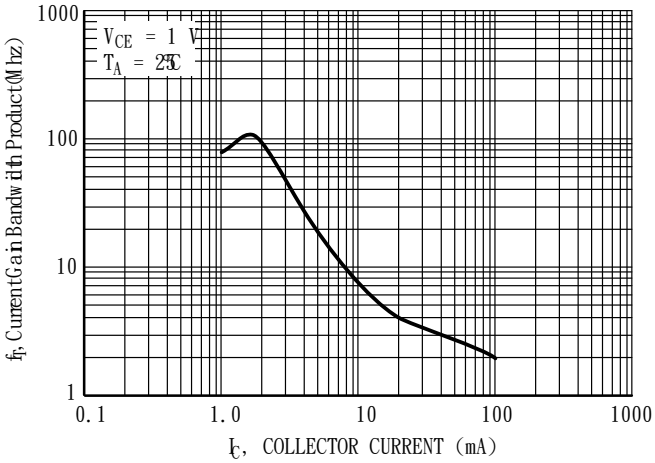

Figure 10. Current Gain Bandwidth Product

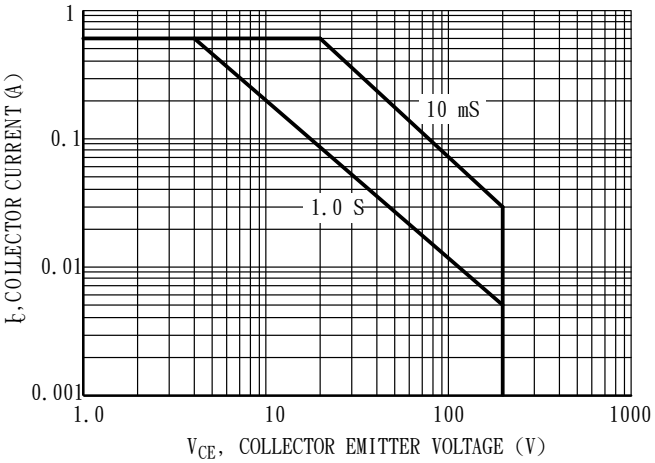

Figure 11. Safe Operating Area

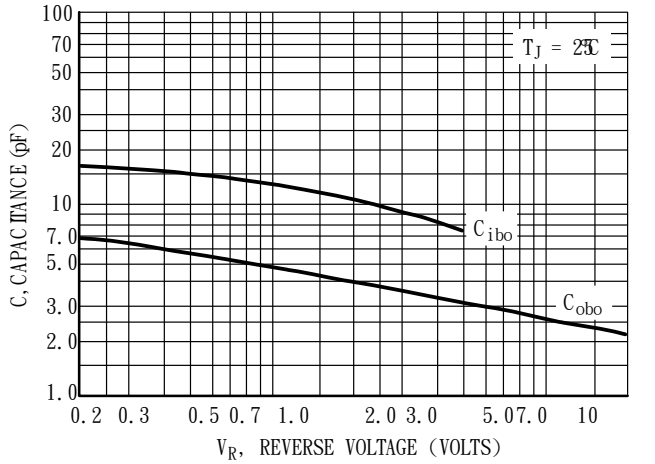

Figure 12. Capacitances

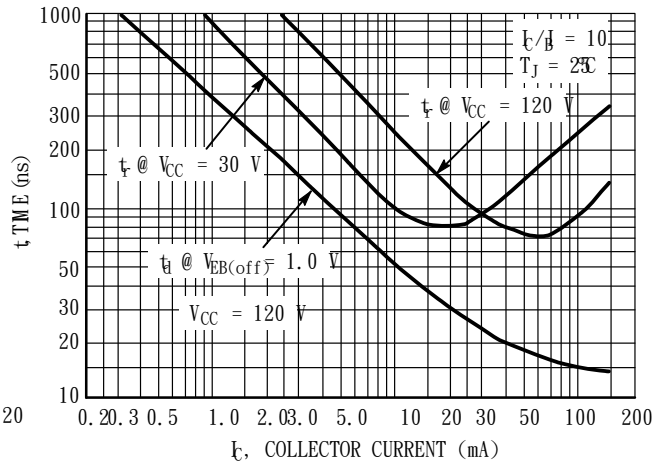

Figure 13. Turn-On Time

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☐ **COMMON PACKING INFORMATION:**

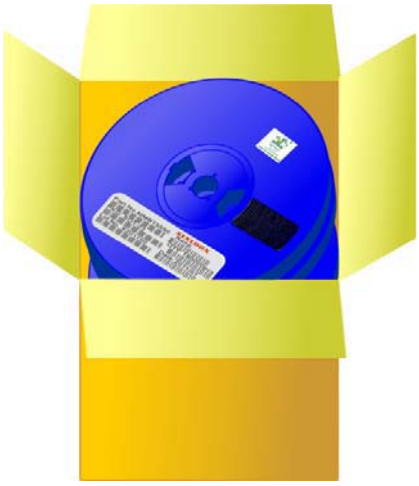
Product Number:	Package Type	Packing Quantity	Carton Quantity	Apporx Gross Weight
MMBT5550	SOT-23	3000 Tape & Reel	180,000 Ctn	12 Kg

Reel Diameter (Inch)	Quantity (Pcs)	Inner Box Size (mm)	Carton Size (mm)
7"	3000	L: 203 x W:203 x H:195	L:439 x W:438 x H:220

Plastic Reel : Fig-1

Reel

Inner Box: Fig-2 Inner Box Qty: 45,000 PCS



Carton Pack Fig-3

Carton Qty: 180,000 PCS

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Mayloon characteristic parameters of electronic product specification changes or updates without prior notice。

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