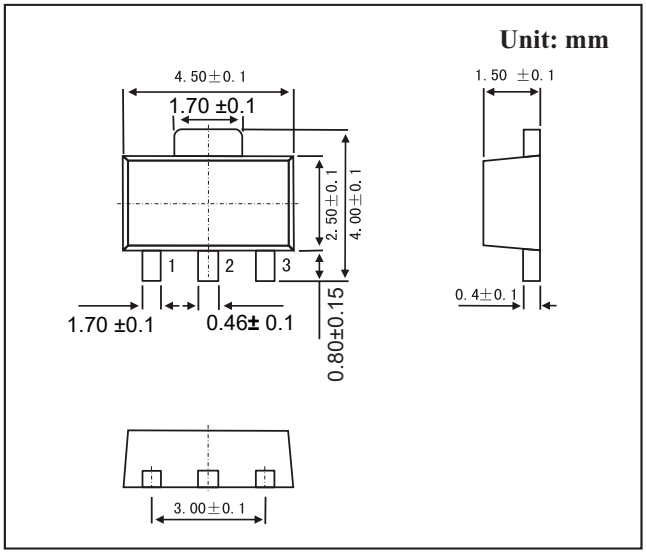
SOT-89 Plastic-Encapsulate Transistors

Features

- High current (max. 500mA).
- Low voltage (max. 150 V).
- Surface Mount NPN Silicon Transistor

MECHANICAL DATA

- Case style:SOT-89 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	180	V
Collector-emitter voltage	V_{CEO}	160	V
Emitter-base voltage	V_{EBO}	6	V
Collector current (DC)	I_C	600	mA
power dissipation	P_D	1.2	W
thermal resistance Junction-to-ambient	$R_{\theta JA}$	104	℃/W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

PACKAGE INFORMATION

Device	Package	Shipping
KXT5551 (CXT5551)	SOT-89	1000/Tape&Reel

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	V_{CBO}	I_C=100 μ A	180			V
Collector to emitter breakdown voltage	V_{CEO}	I_C=1.0mA	160			V
Emitter to base breakdown voltage	V_{EBO}	I_E=10 μ A	6.0			V
Collector cutoff current	I_{CBO}	V_{CB} = 120 V, I_E = 0			50	nA
		V_{CB} = 120 V, T_A=100℃			50	μ A
DC current gain	h_{FE}	I_C = 1.0 mA; V_{CE} = 5.0 V	80			
		I_C = 10mA; V_{CE} = 5.0V	80		250	
		I_C = 50 mA; V_{CE} = 5.0V	30			
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 10 mA; I_B = 1.0mA			0.15	V
		I_C = 50 mA; I_B = 5.0mA			0.20	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = 10 mA; I_B = 1.0mA			1.00	V
		I_C = 50 mA; I_B = 5.0mA			1.00	V
Output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0,f=1.0MHz			6.0	pF
Transition frequency	f_T	I_C = 10 mA; V_{CE} =10V; f = 100 MHz	100		300	MHz

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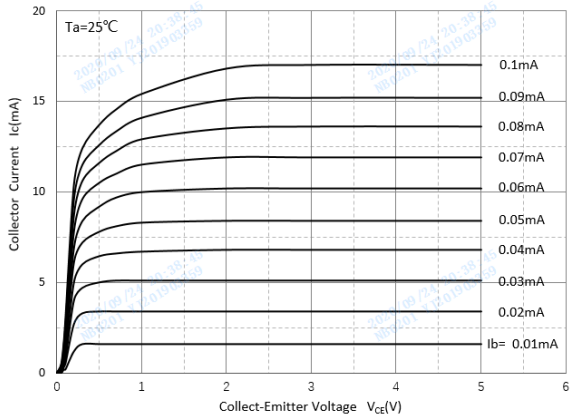
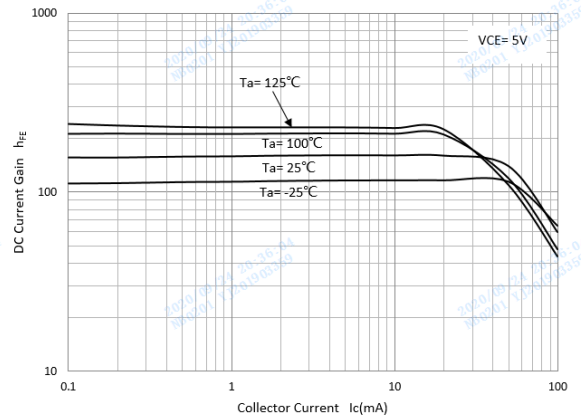
Marking	1G6

RATINGS AND CHARACTERISTIC CURVES

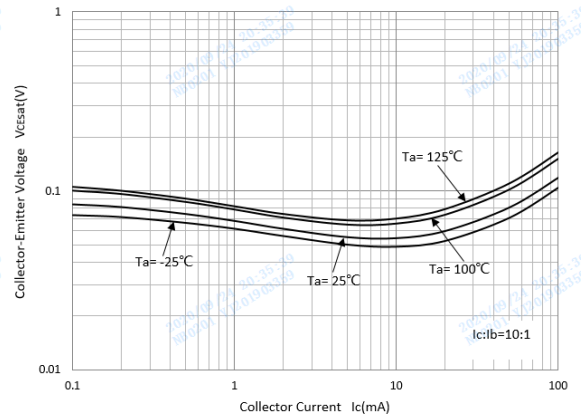
Static Characteristic



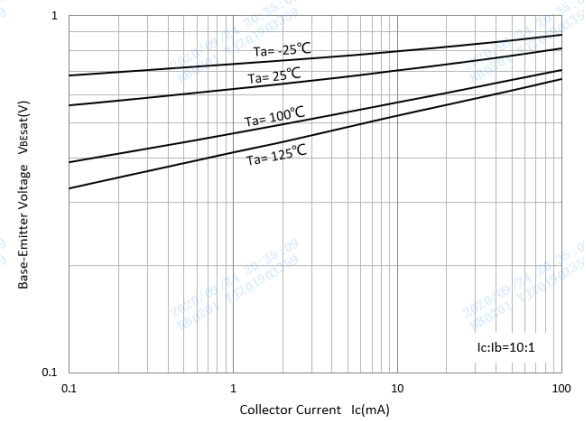
DC Current Gain



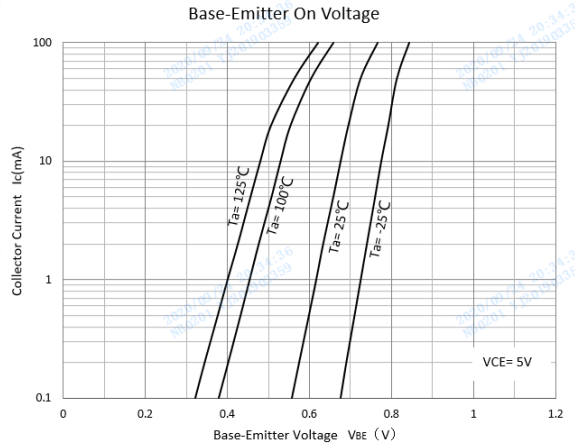
Collector-Emitter Saturation Voltage



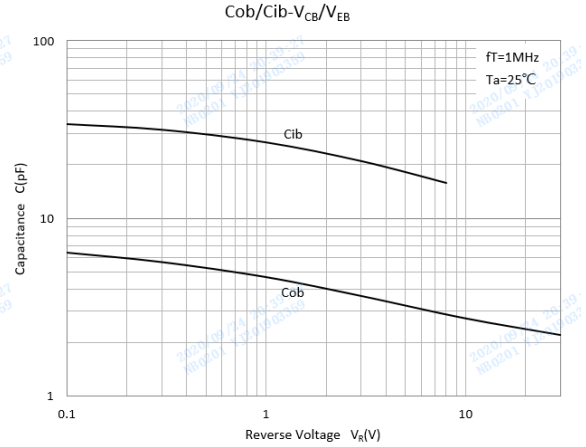
Base-Emitter Saturation Voltage



Base-Emitter On Voltage



Cob/Cib-V_{CB}/V_{EB}



Collector Power Derating Curve