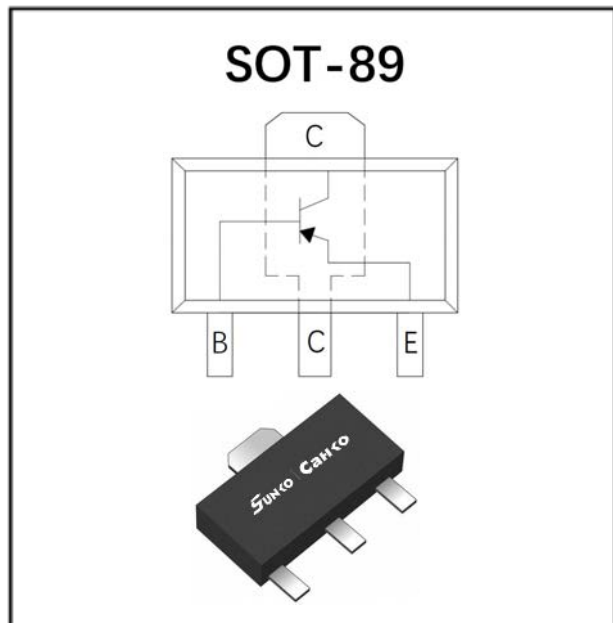


PNP General Purpose Amplifier

**Features**

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1

Mechanical Data

- **Package:** SOT-89
Molding compound meets UL 94 V-0 flammability rating, -compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 5401

■Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Minimum Collector-Emitter Voltage	V_{CEO}	V	$I_C = -1\text{mA}$, $I_B = 0$	-150
Minimum Collector-Base Voltage	V_{CBO}	V	$I_C = -100\mu\text{A}$, $I_E = 0$	-160
Minimum Emitter-Base Voltage	V_{EBO}	V	$I_E = -10\mu\text{A}$, $I_C = 0$	-5
Collector Current	I_C	mA		-500
Collector Power Dissipation	P_C	mW		500
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	°C/W		250
Operation Junction Temperature	T_j	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

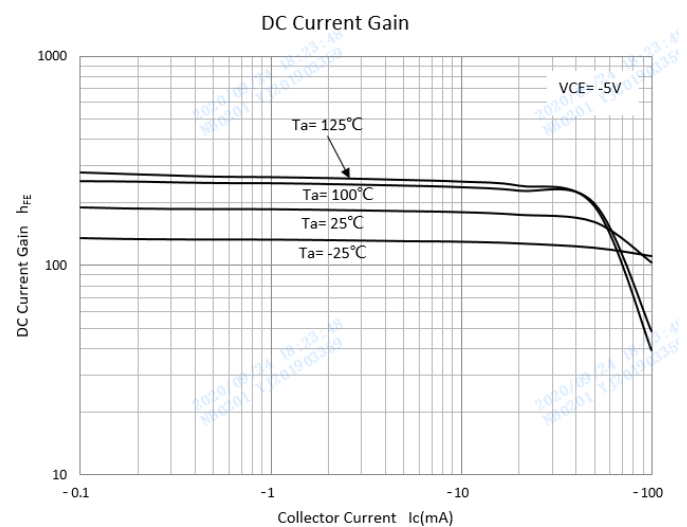
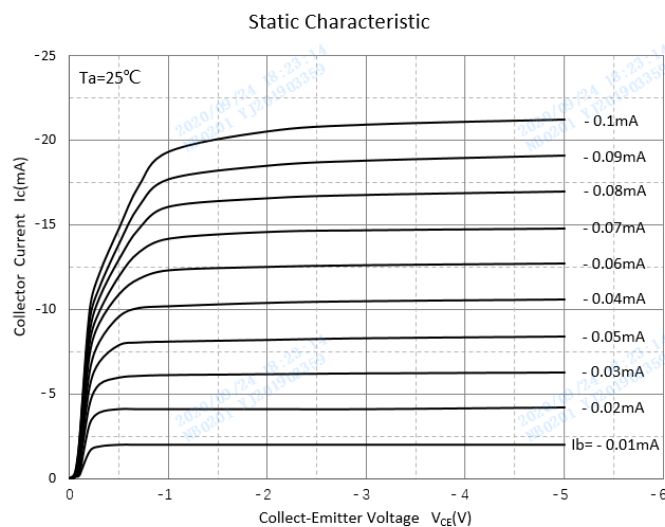
■Electrical Characteristics (Ta=25℃ unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-Emitter Voltage	V_{CEO}	V	$I_C=-1mA, I_B=0$	-150		
Collector-Base Voltage	V_{CBO}	V	$I_C=-100\mu A, I_E=0$	-160		
Emitter-Base Voltage	V_{EBO}	V	$I_E=-10\mu A, I_C=0$	-5		
Collector-Base cut-off current	I_{CBO}	nA	$V_{CB}=-120V$			-50
Emitter-Base cut-off current	I_{EBO}	nA	$V_{EB}=-3V$			-50
DC Current Gain	h_{FE1}		$I_C=-1mA, V_{CE}=-5V$	50		
	h_{FE2}		$I_C=-10mA, V_{CE}=-5V$	60		300
	h_{FE3}		$I_C=-50mA, V_{CE}=-5V$	50		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=-10mA, I_B=-1mA$			-0.2
			$I_C=-50mA, I_B=-5mA$			-0.5
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=-10mA, I_B=-1mA$			-1
			$I_C=-50mA, I_B=-5mA$			-1
Transition Frequency	f_T	MHz	$I_C=-10mA, V_{CE}=-10V, f=100MHz$	100		300
Collector-base Output Capacitance	C_{obo}	pF	$V_{CB}=-10Vdc, f=1MHz, I_E=0$			6
Noise Figure	NF	dB	$V_{CE}=-5V, I_C=-0.2mA, R_S=10\Omega, f=10Hz-15.7KHz,$			8

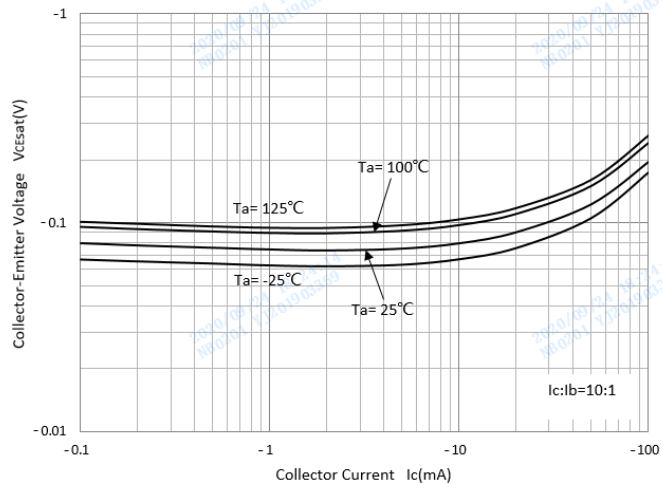
■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
CXT5401	F2	Approximate 055	1000	8000	32000	7" reel

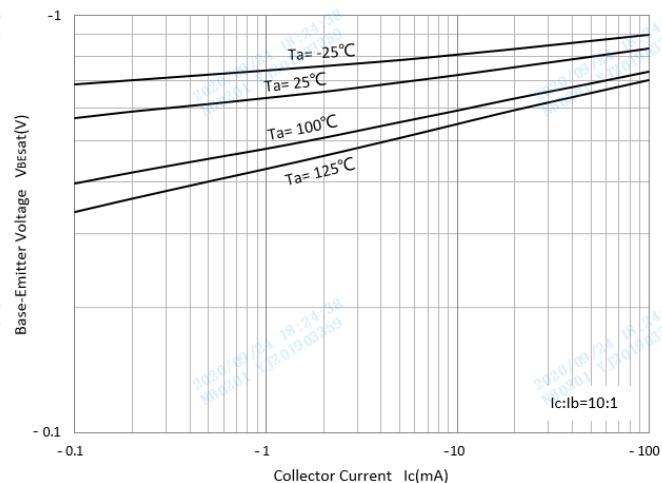
■Characteristics (Typical)



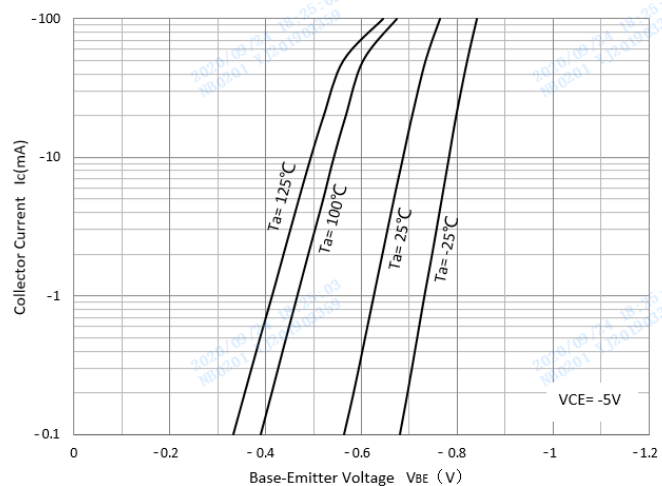
Collector-Emitter Saturation Voltage



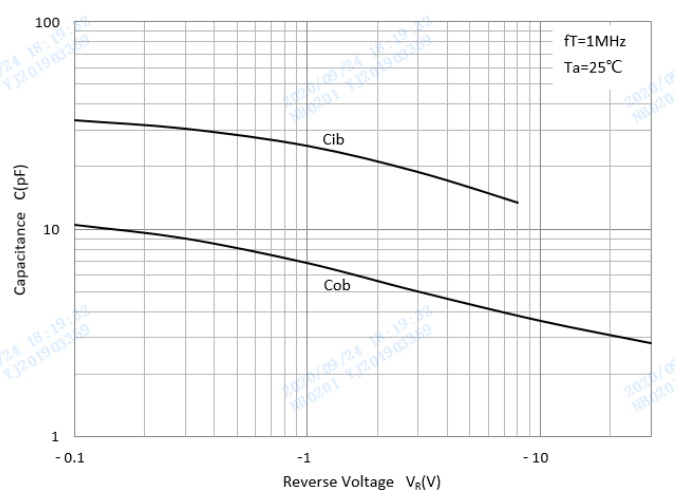
Base-Emitter Saturation Voltage



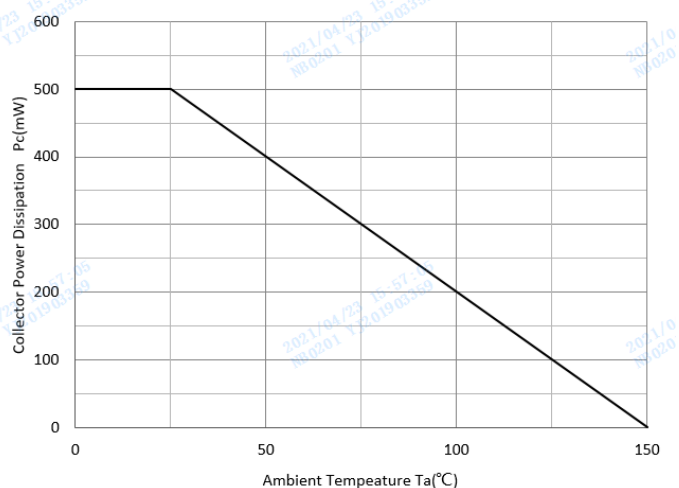
Base-Emitter On Voltage



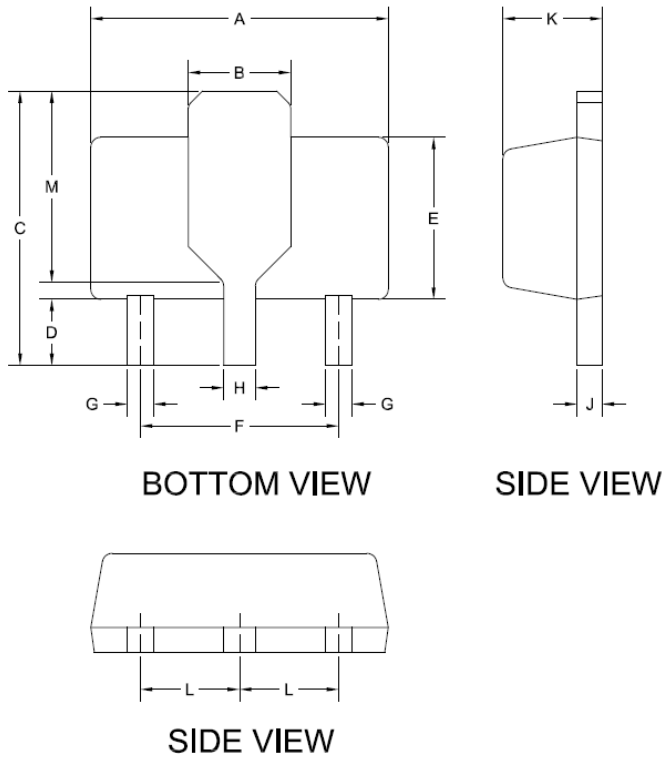
$C_{ob}/C_{ib}-V_{CB}/V_{EB}$



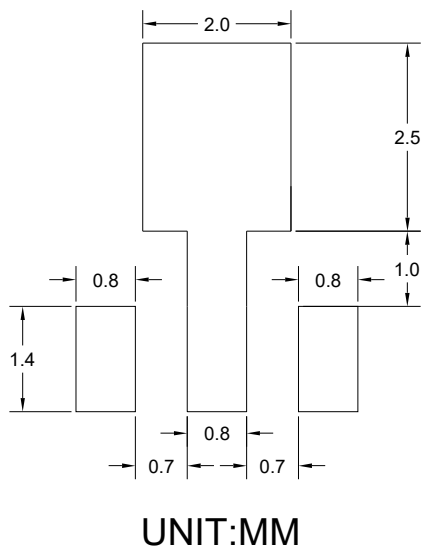
Collector Power Derating Curve



■SOT-89 Package Outline Dimensions



■SOT-89 Suggested Pad Layout



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