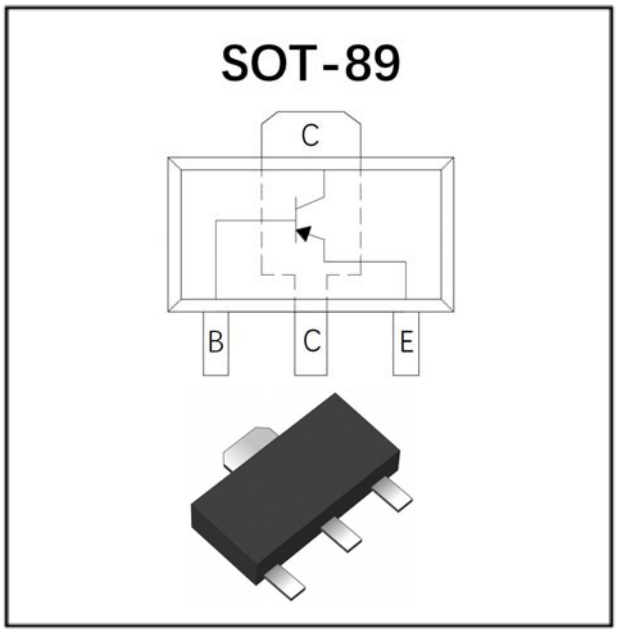
PNP General Purpose Amplifier



Features

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

Mechanical Data

- **Package**: SOT-89

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free

- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking:5401

■Maximum Ratings (Ta=25℃ unless otherwise noted)

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

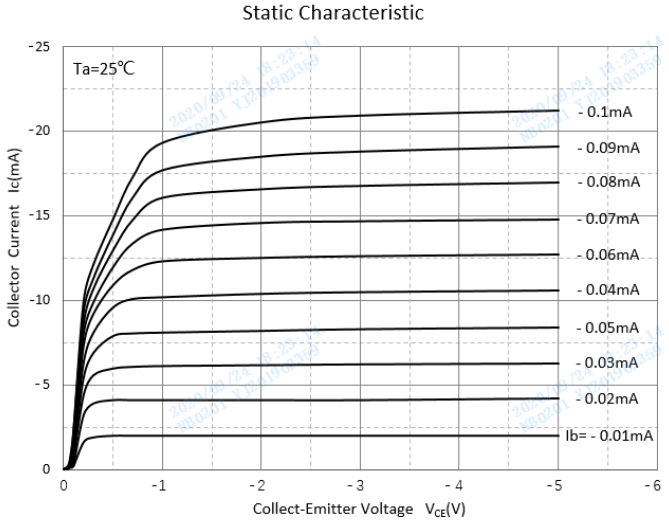
■Electrical Characteristics (Ta=25℃ unless otherwise noted)

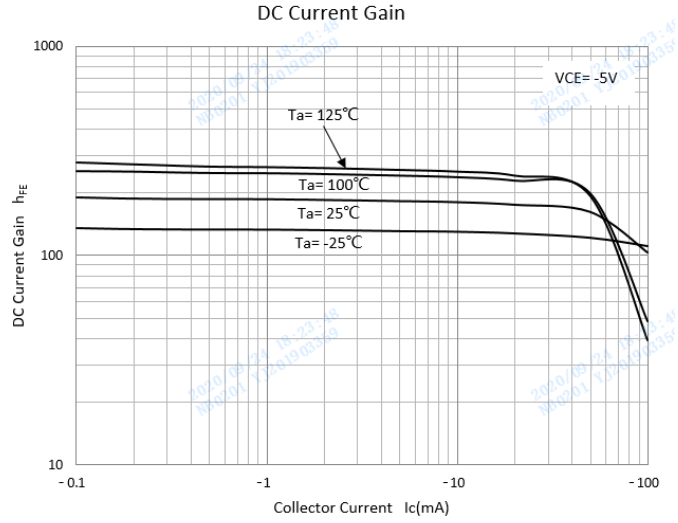
Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-Emitter Voltage	V_{CEO}	V	I_C=-1mA, I_B=0	-150		
Collector-Base Voltage	V_{CBO}	V	I_C=-100uA, I_E=0	-160		
Emitter-Base Voltage	V_{EBO}	V	I_E=-10uA, I_C=0	-5		
Collector-Base cut-off current	I_{CBO}	nA	V_{CB}=-120V			-50
Emitter-Base cut-off current	I_{EB0}	nA	V_{EB}=-3V			-50
DC Current Gain	$h_{FE}1$		I_C=-1mA, V_{CE}=-5V	50		
	$h_{FE}2$		I_C=-10mA, V_{CE}=-5V	60		300
	$h_{FE}3$		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=10Ω, f=10Hz-15.7KHz,			8

■Ordering Information (Example)

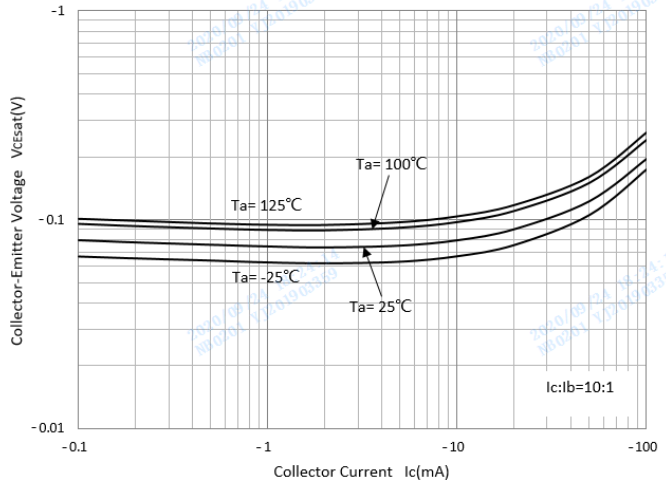
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
CXT5401	F2	Approximate 055	1000	8000	32000	7” reel

■Characteristics (Typical)

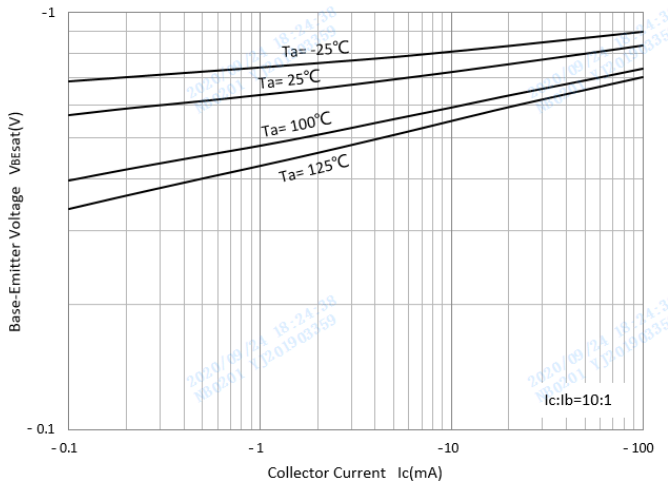




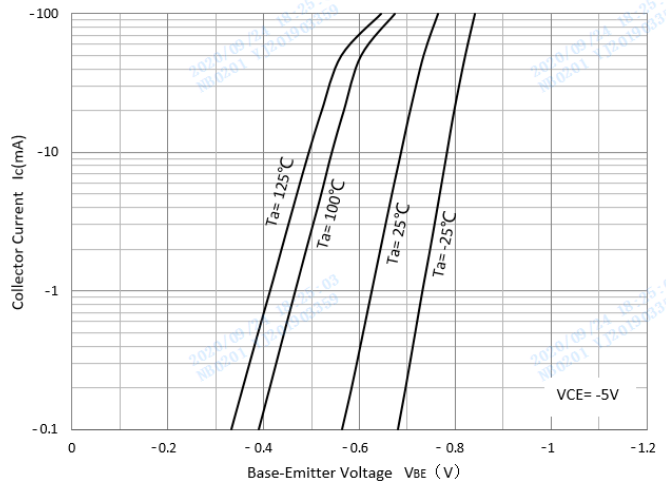
Collector-Emitter Saturation Voltage



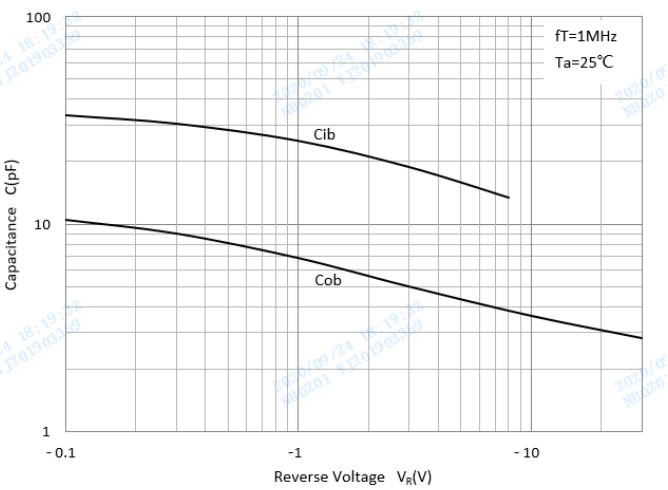
Base-Emitter Saturation Voltage



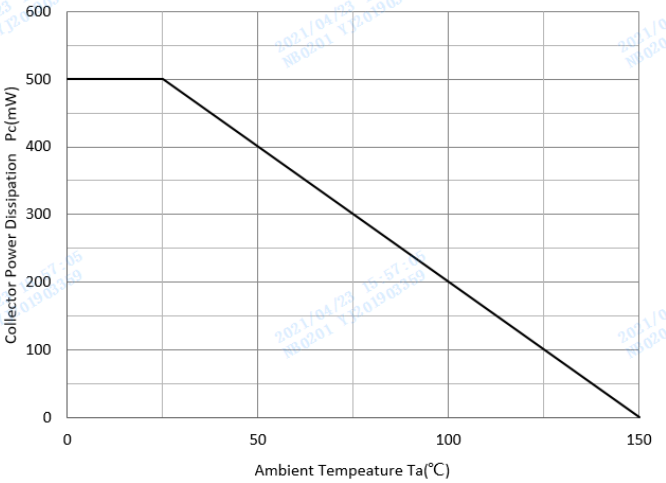
Base-Emitter On Voltage



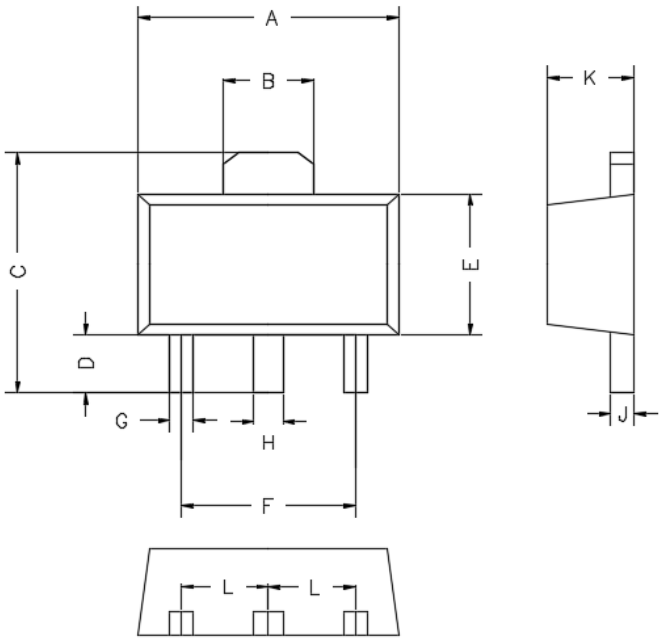
Cob/Cib-V_{CB}/V_{EB}



Collector Power Derating Curve

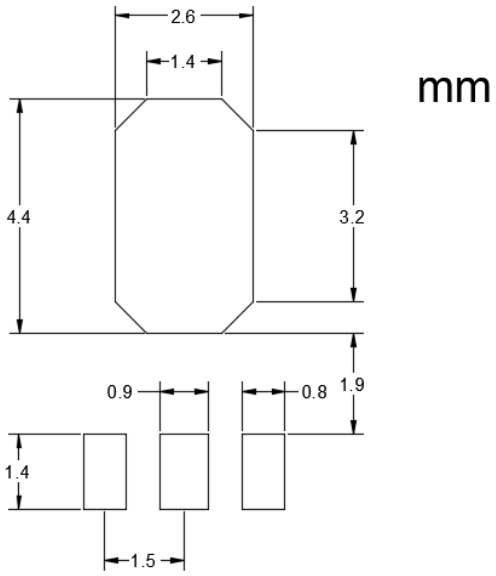


■SOT-89 Package Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.061		1.55		TYP
C	0.154	0.171	3.91	4.35	
D	0.031	0.047	0.80	1.20	
E	0.089	0.104	2.25	2.65	
F	0.118		3.00		TYP
G	0.013	0.020	0.33	0.52	
H	0.016	0.023	0.40	0.58	
J	0.014	0.017	0.35	0.44	
K	0.055	0.063	1.40	1.60	
L	0.059		1.50		TYP

■SOT-89 Suggested Pad Layout



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