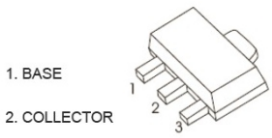
Features

- Switching and amplification in high voltage Applications such as telephony
- Low current
- High voltage

SOT-89



Mechanical Data

- Case:SOT-89-3L
- Terminals:Plated solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Marking:A44

Maximum Ratings(T_A=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	400
Collector-Base Voltage	V_{CBO}	V	400
Emitter-Base Voltage	V_{EBO}	V	6.0
Collector Curre nt, Continuous	I_C	mA	200
Power Dissipation	P_D	mW	500
Operation Juncti on Temperature	T_J	℃	150
Storage Temperature	T_{STG}	℃	-55 to +150

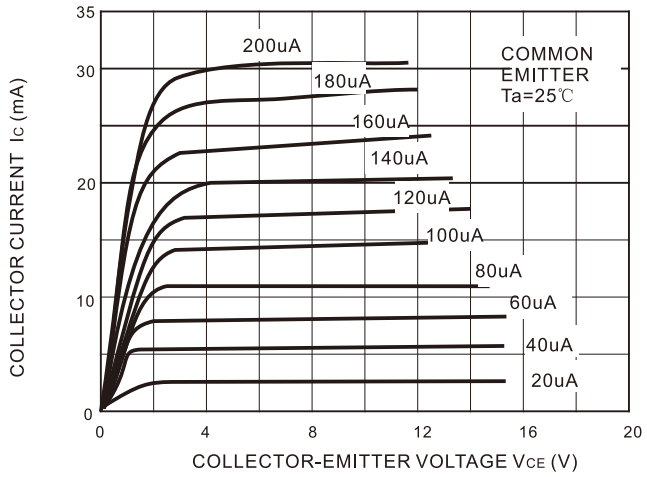
Electrical Characteristics(T_A=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	V	I_C=1mA,I_B=0	400	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	I_C=100μA,I_E=0	400	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	V	I_E=10μA,I_C=0	6.0	---
Collector cut-off Current	I_{CBO}	nA	V_{CB}=400V,I_E=0	---	100
Emitter cut-off Current	I_{EBO}	nA	V_{EB}=4V,I_C=0	---	100
DC Current Gain	$h_{FE(1)}$		I_C=1mA,V_{CE}=10V	40	---
	$h_{FE(2)}$		I_C=10mA,V_{CE}=10V	50	200
	$h_{FE(3)}$		I_C=50mA,V_{CE}=10V	45	---
	$h_{FE(4)}$		I_C=100mA,V_{CE}=10V	40	---
Collector-Emitter Saturation Voltage	VCE(sat)	V	I_C=1mA,I_B=0.1mA	---	0.4
			I_C=10mA,I_B=1mA	---	0.50
			I_C=50mA,I_B=5mA	---	0.75
Base-Emitter Saturation Voltage	VBE(sat)	V	I_C=10mA,I_B=1mA	---	0.75
Current Gain-Bandwidth Product	f_T	MHz	I_C=100mA,V_{CE}=20V f=30MHz	50	---
Output Capacitance	Cob	pF	V_{CB}=20V,f=1.0MHz,I_E=0	---	7
Emitter input capacitance	Cib	pF	V_{bE}=0.5V,f=1Hz, I_C=0	---	130

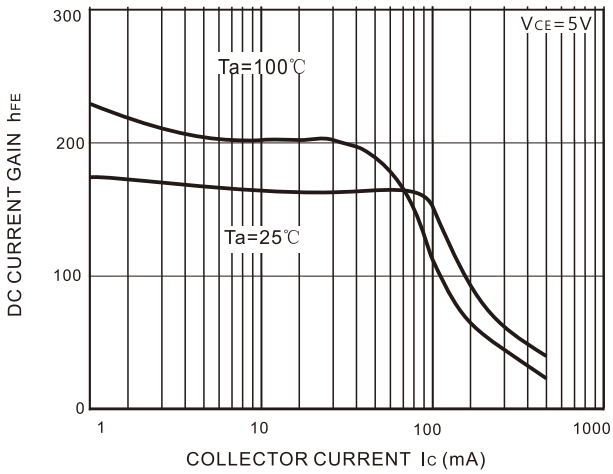
Pulse test:pulse width≤300us,duty cycle≤2.0%

Characteristics(Typical)

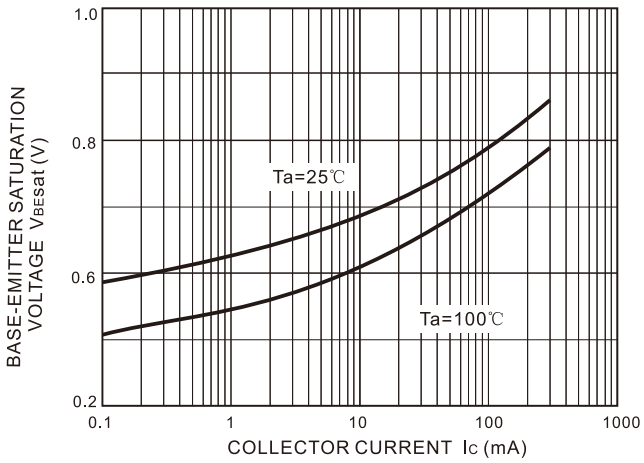
Static Characteristic



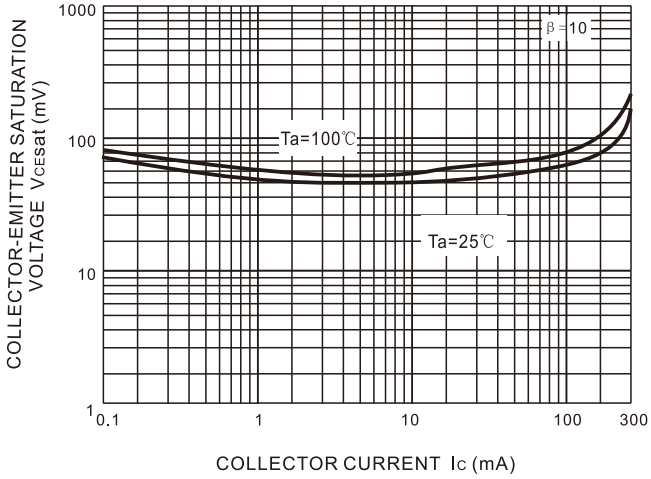
hFE —Ic



VBEsat —Ic

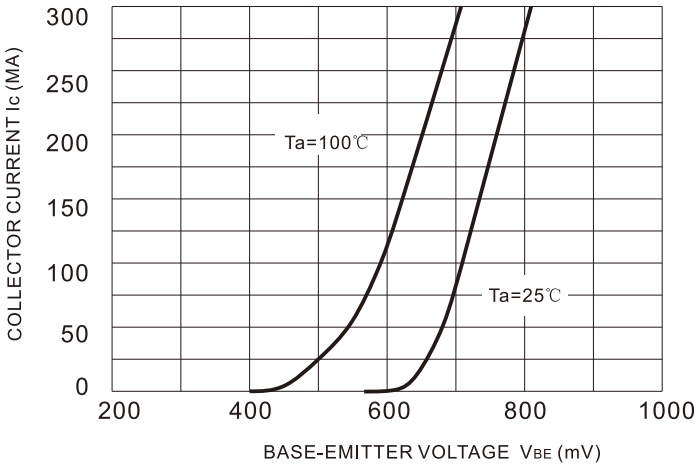


VCEsat —Ic

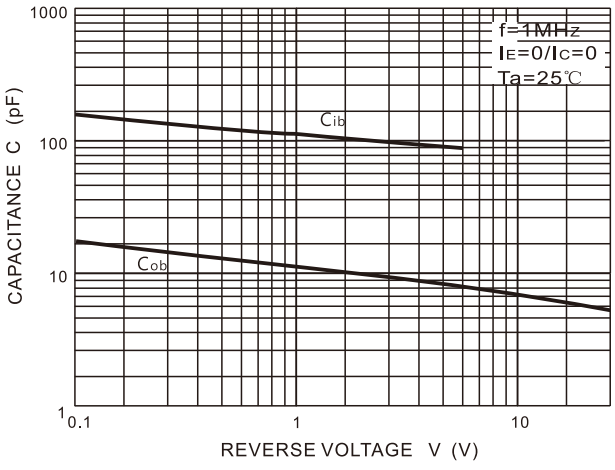


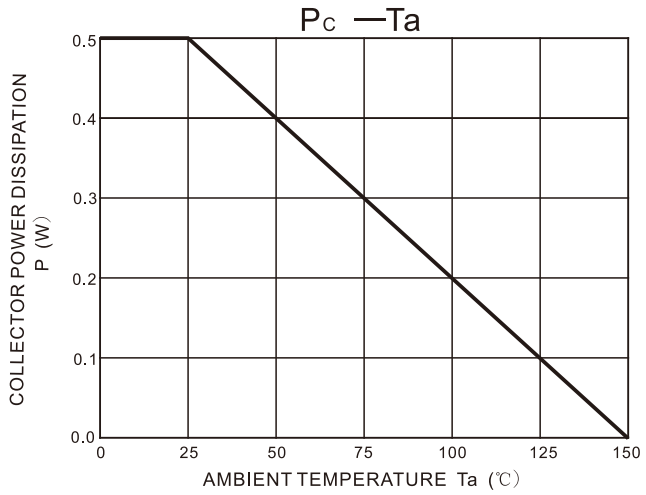
Cob/Cib —VCB /VEB

Ic—VBE

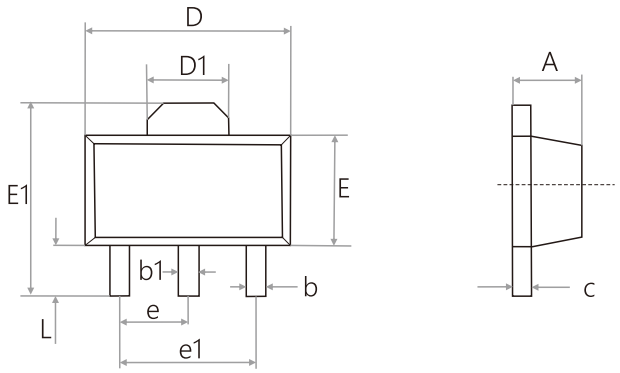


VCEsat —Ic





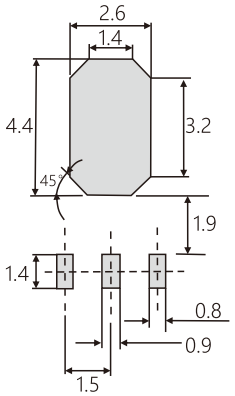
Outline Dimensions



SOT-89		
Dim	Min	Max
A	1.40	1.60
b	0.32	0.52
b1	0.40	0.58
c	0.35	0.44
D	4.40	4.60
D1	1.55REF	
E	2.30	2.60
E1	3.94	4.25
e	1.50TYP	
e1	3.00TYP	
L	0.90	1.20

Dimensions in millimetrers

Suggested pad layout



Dimensions in millimetrers

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