

PRIMARY CHARACTERISTICS

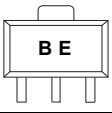
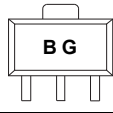
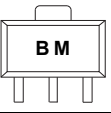
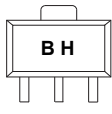
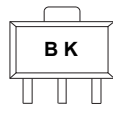
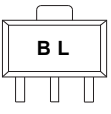
P_C	500mW
V_{CEO}	BCX55 : 60V BCX56 : 80V
I_C	1.0A
h_{FE}	63~250
$T_{J,Max}$	150°C

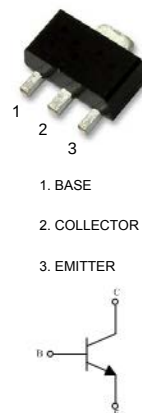
FEATURES

- Low Voltage
- High Current
- Driver Stages of Audio Amplifiers
- Moisture Sensitivity Level 1

SOT-89 PACKAGE

MARKING:

BCX55 BE	BCX55-10 BG	BCX55-16 BM
		
BCX56 BH	BCX56-10 BK	BCX56-16 BL
		



MECHANICAL DATA

- Case : Molded plastic, SOT-89
- Polarity : Indicated by cathode band
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

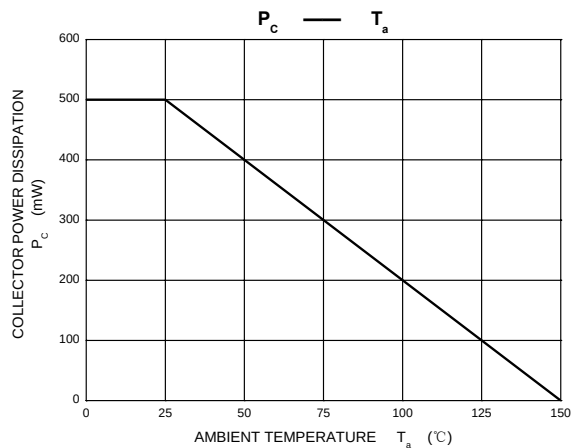
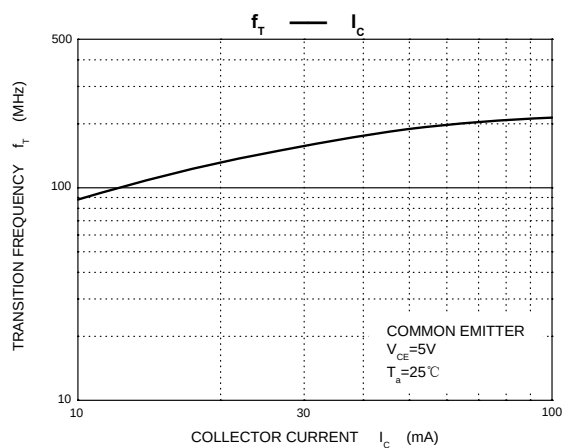
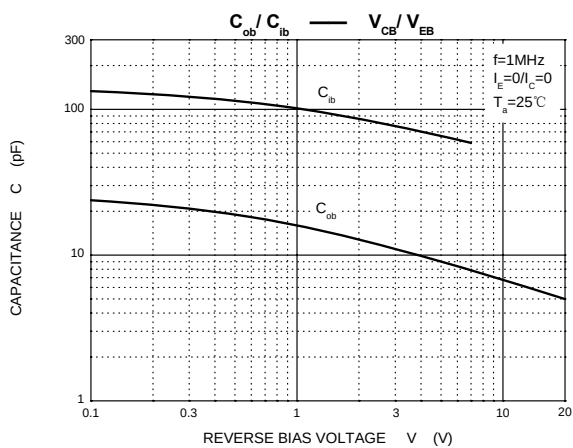
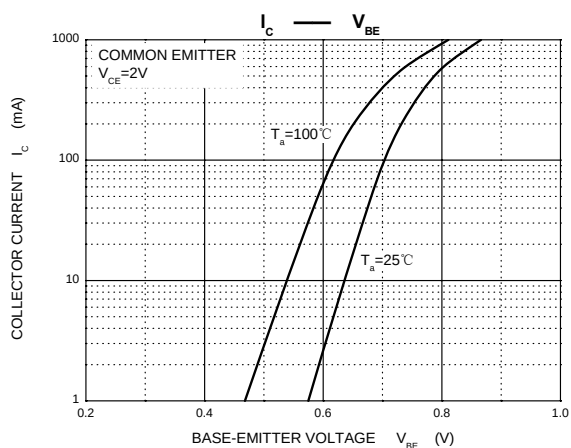
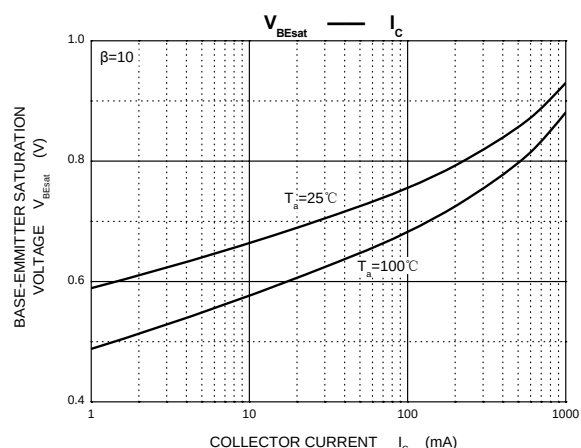
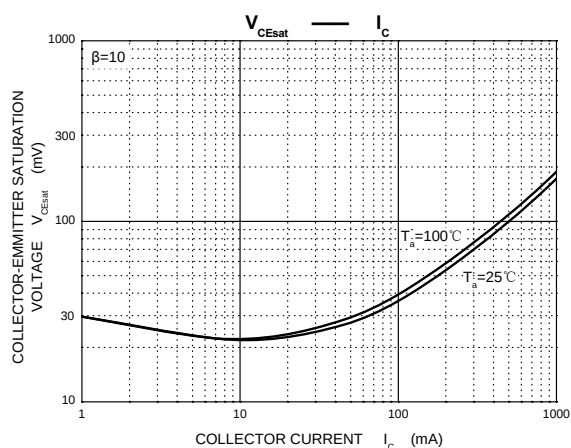
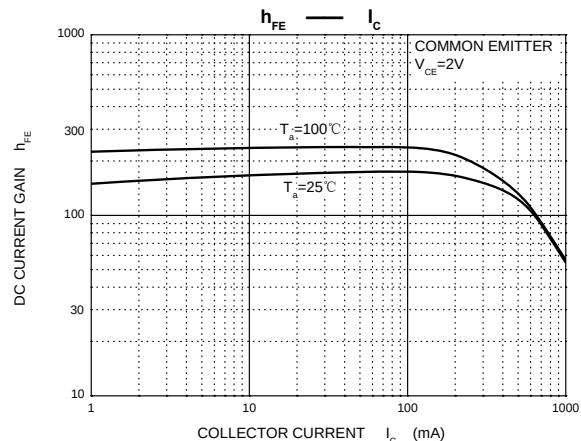
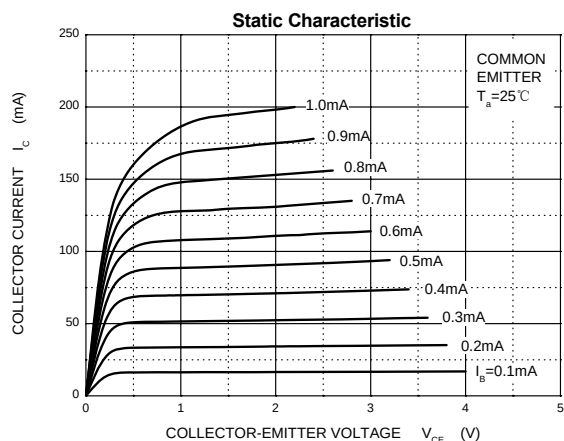
Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCX55	60	V
		BCX56	100	
V_{CEO}	Collector-Emitter Voltage	BCX55	60	V
		BCX56	80	
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current		1	A
P_C	Collector Power Dissipation		500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient		250	°C/W
T_j	Junction Temperature		150	°C
T_{stg}	Storage Temperature		-55~+150	°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	BCX55	60		V
			BCX56	100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=10mA, I_B=0$	BCX55	60		V
			BCX56	80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$		5		V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=2V, I_C=5mA$	40			
	$h_{FE(2)}^*$	$V_{CE}=2V, I_C=150mA$	63		250	
	$h_{FE(3)}^*$	$V_{CE}=2V, I_C=0.5A$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=0.5A, I_B=50mA$			0.5	V
Base -emitter voltage	V_{BE}^*	$V_{CE}=2V, I_C=0.5A$			1	V
Transition frequency	f_T	$V_{CE}=5V, I_C=10mA, f=100MHz$		130		MHz

CLASSIFICATION OF $h_{FE(2)}$

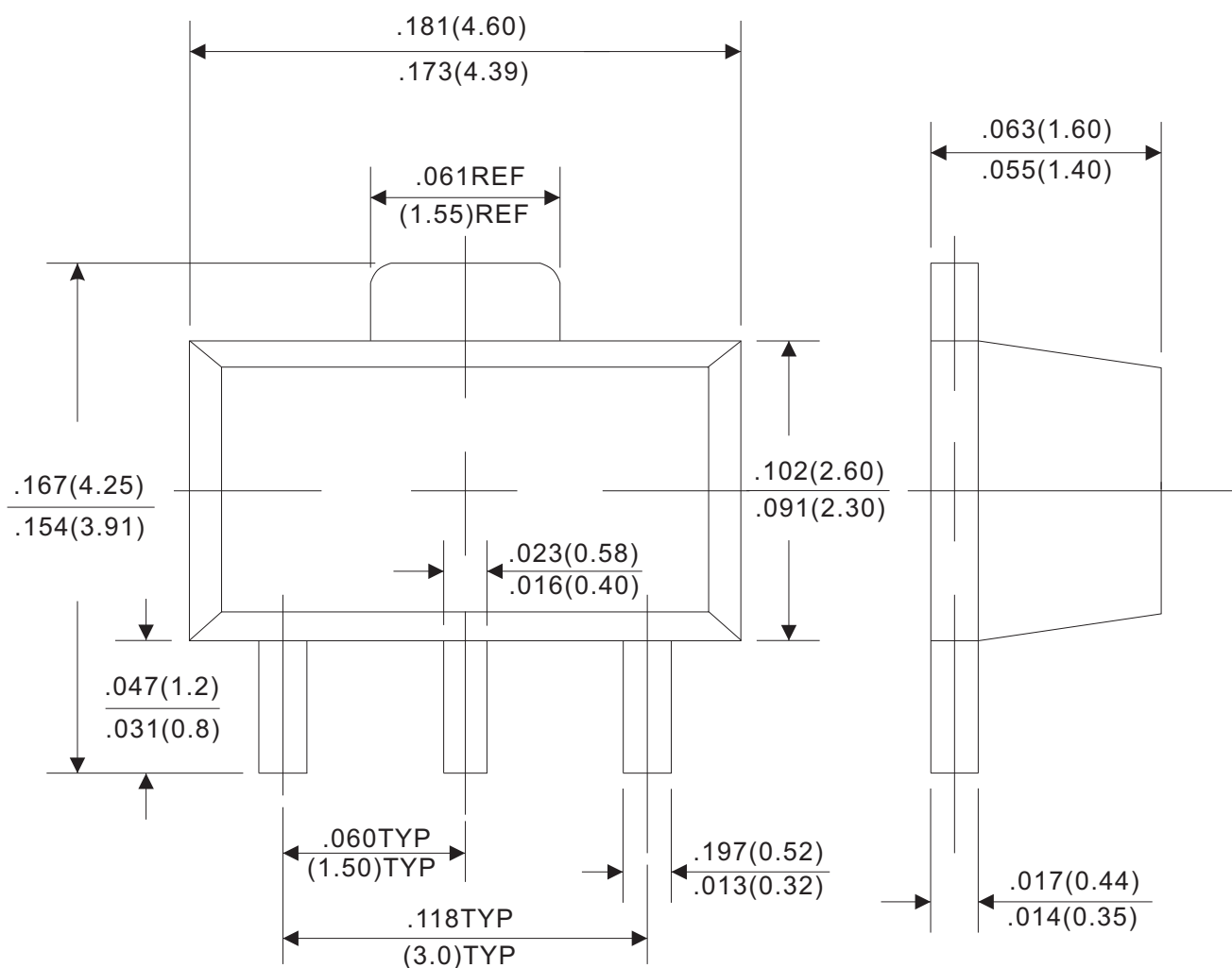
RANK	BCX55 BCX56	BCX55-10 BCX56-10	BCX55-16 BCX56-16
RANGE	63 – 250	63 – 160	100 – 250

Typical Characteristics



Outline Drawing

SOT-89

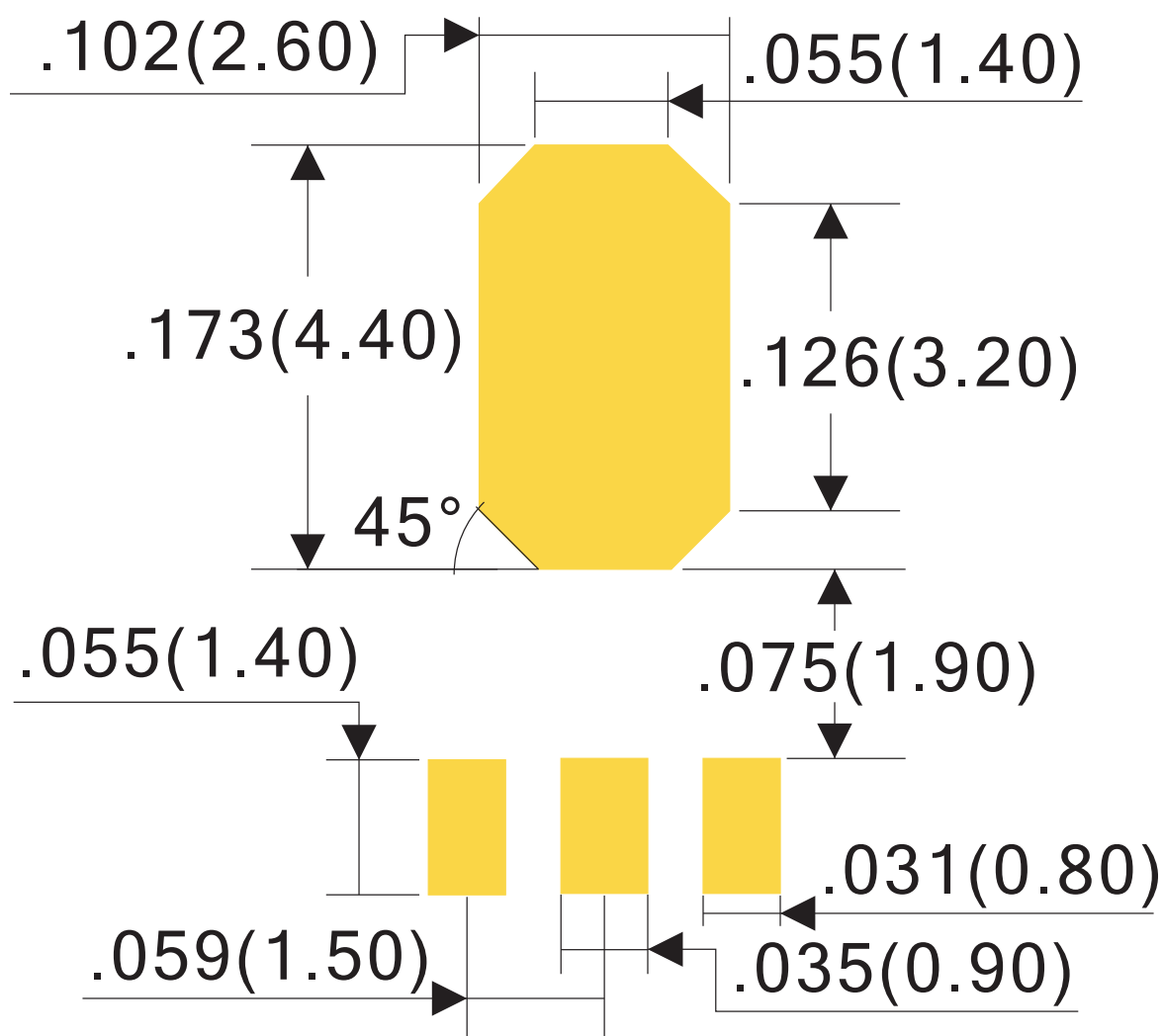


Dimensions in inches and (millimeters)

Rev.C

Suggested Soldering Pad Layout

SOT-89

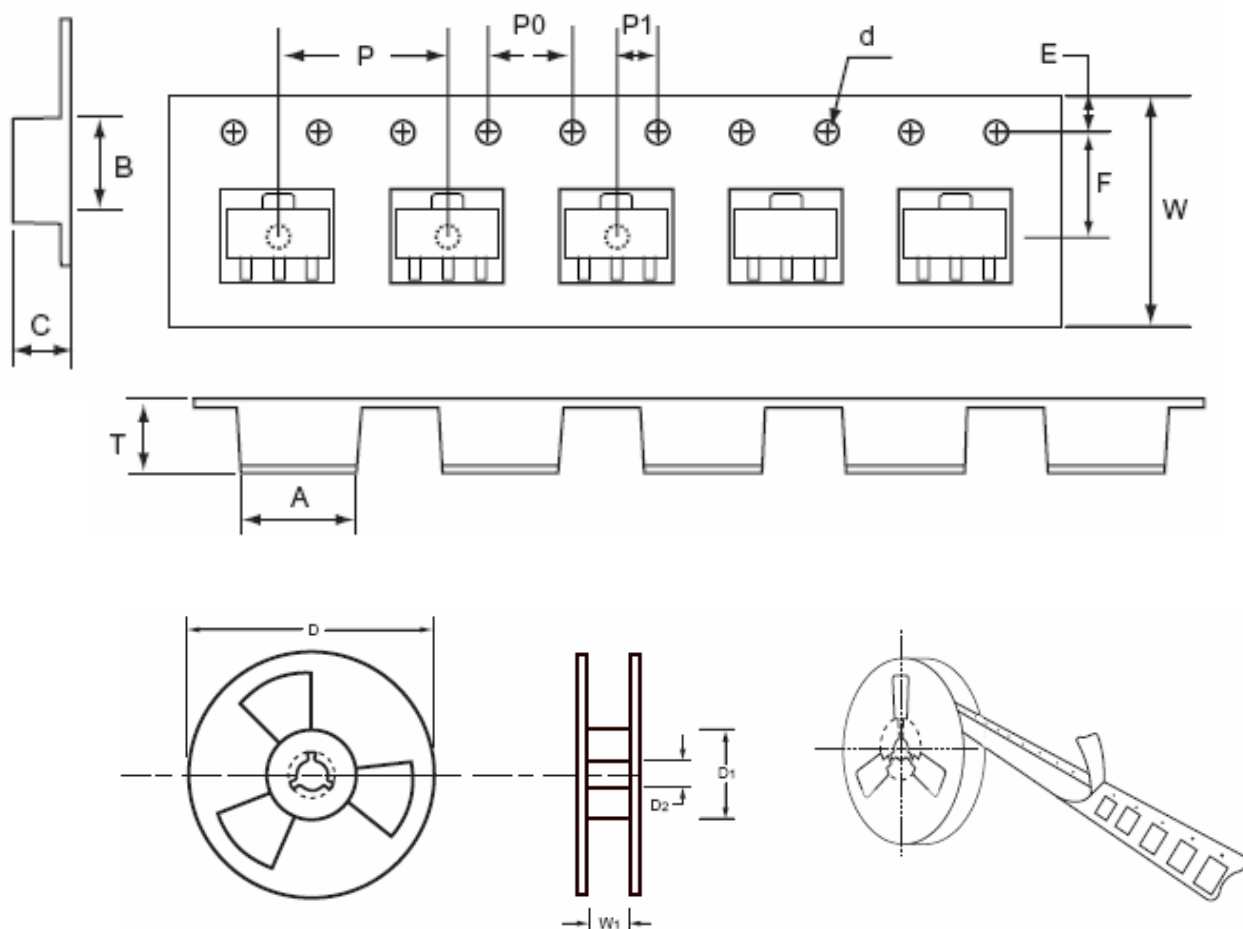


Dimensions in inches and (millimeters)

Rev.A

Reel Taping Specification - Surface Mount Device/SOT-89

PACKAGE	PER REEL EA	REEL DIA (m/m)	PER BOX EA	PER CARTION EA
SOT-89	1000	178	10,000	40,000



ITEM	SYMBOL	SPECIFICATIONS(mm)	SPECIFICATIONS(inch)
Carrier width	A	4.90±0.12	0.193±0.0047
Carrier length	B	4.80±0.16	0.189±0.0062
Carrier depth	C	2.00±0.013	0.079±0.0051
Sprocket hole	d	178±0.14	7.008±0.0055
Reel outside diameter	D	1.55±0.11	0.059±0.0043
Reel inner diameter	D1	8±0.12	0.315±0.0047
Feed hole diameter	D2	13±0.14	0.512±0.0055
Sprocket hole position	E	1.75±0.15	0.069±0.0059
Punch hole position	F	5.5±0.05	0.217±0.0019
Punch hole pitch	P	8.0±0.17	0.315±0.0067
Sprocket hole pitch	P0	4.0±0.11	0.157±0.0043
Embossment center	P1	2.0±0.05	0.079±0.0019
Overall tape thickness	T	2.3±0.05	0.091±0.0019
Tape width	W	12.0±0.12	0.472±0.0047
Reel width	W1	16.8±0.13	0.661±0.0051

Ordering Information:

Device PN	Packing
Part Number ⁽³⁾ -SOT89 ⁽¹⁾ G ⁽²⁾ -WS	Tape& Reel: 1 Kpcs/Reel

Note: (1) CASE:SOT-89

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

(3) CLASSIFICATION OF hFE RANK

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