



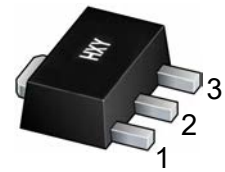
Features

- High voltage: $V_{CEO}=80V$
- High Breakdown Voltage and Current
- Excellent DC Current Gain Linearity
- Low Collector-Emitter Saturation Voltage

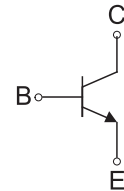
1. BASE

2. COLLECTOR

3. EMITTER



SOT-89



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BSR43TA	SOT-89	DF	1000

Maximum Ratings ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1	A
P_C	Collector Power Dissipation	0.5	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}C$

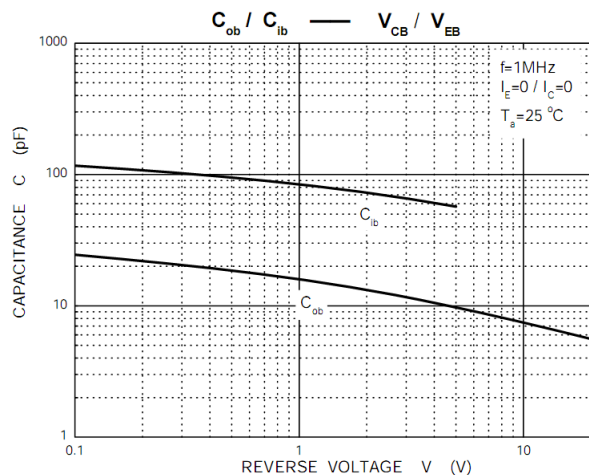
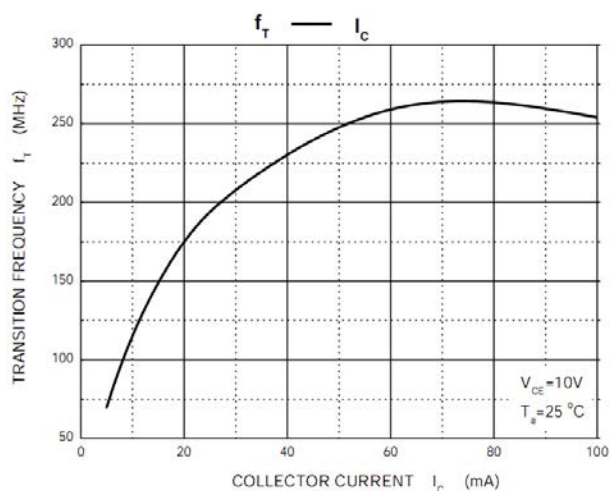
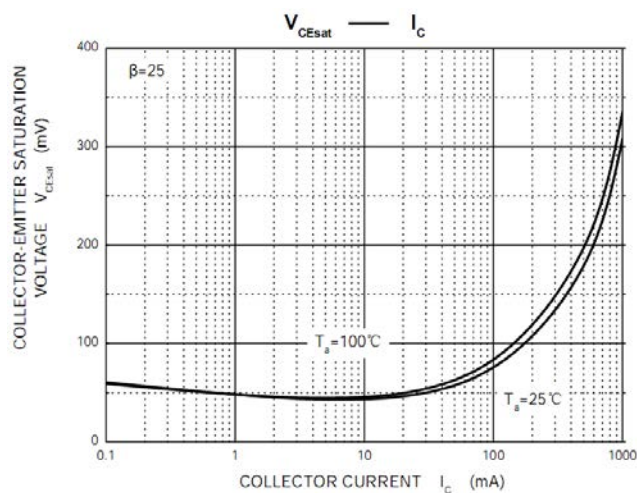
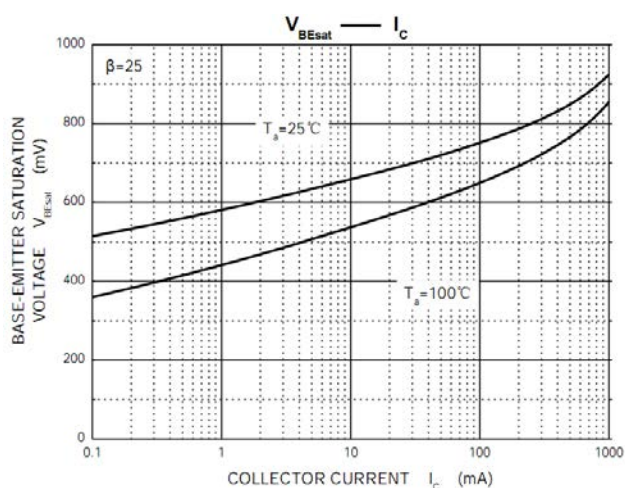
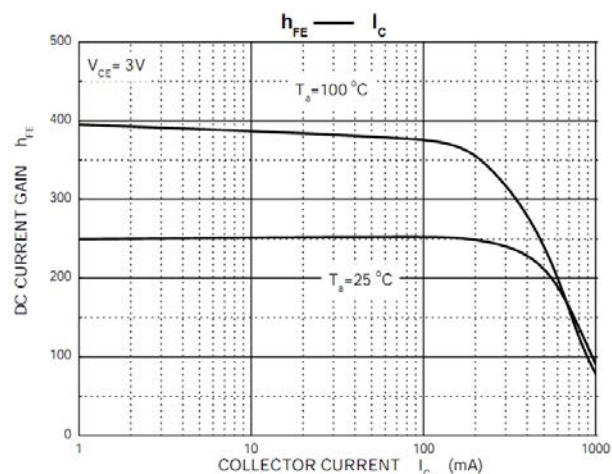
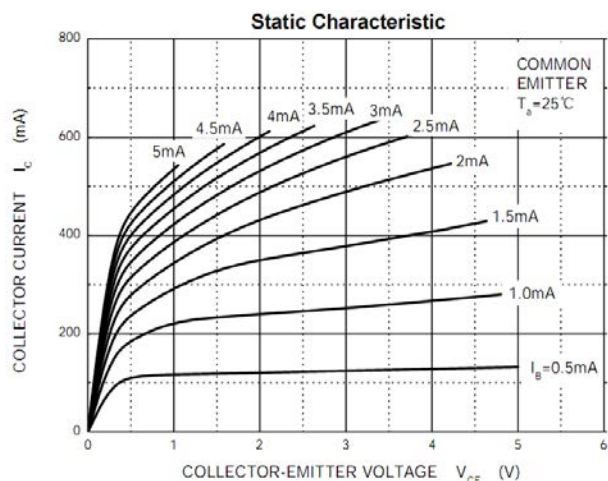
Electrical Characteristics ($T_a=25^{\circ}C$ unless otherwise specified)

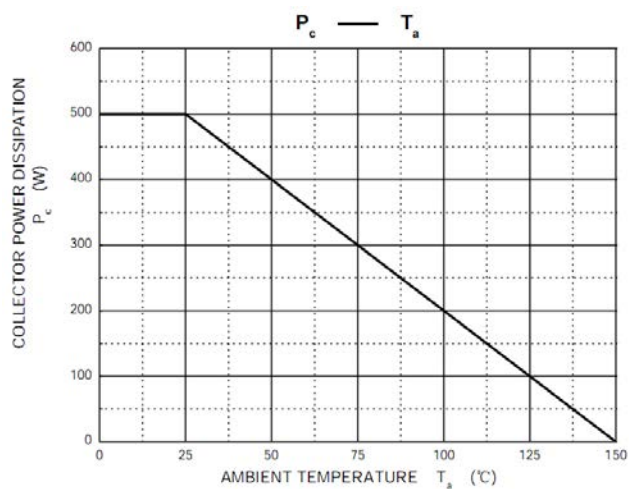
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu A, I_E=0$	100		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=1mA, I_B=0$	80		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A, I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=80V, I_E=0$		1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$		1	μA
DC current gain	h_{FE}	$V_{CE}=5V, I_C=200mA$	180	390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=20mA$		0.4	V
Transition frequency	f_T	$V_{CE}=10V, I_C=200mA$	100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		20	pF

* pulse test

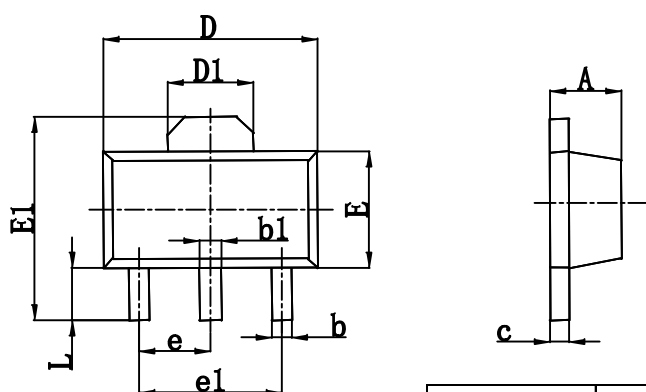


Typical Characteristics





SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047



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