

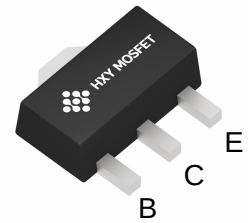


Features

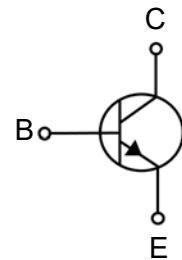
- Collector Current: $I_C=2A$
- Power Dissipation of 500mW

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
PBSS4250X,115	SOT-89 (TO-243AA)	MY	1000



**SOT-89
(TO-243AA)**



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

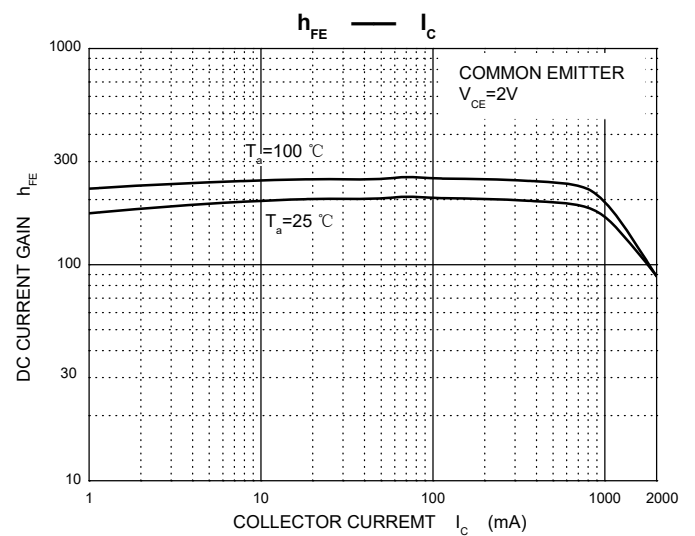
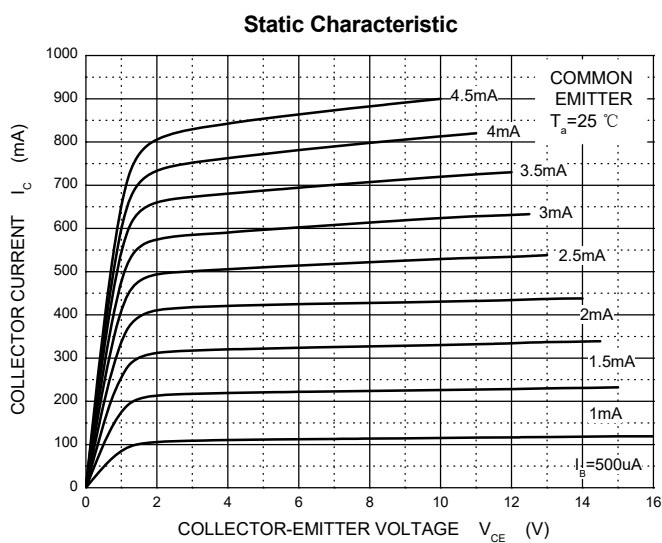
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^{\circ}C/W$
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

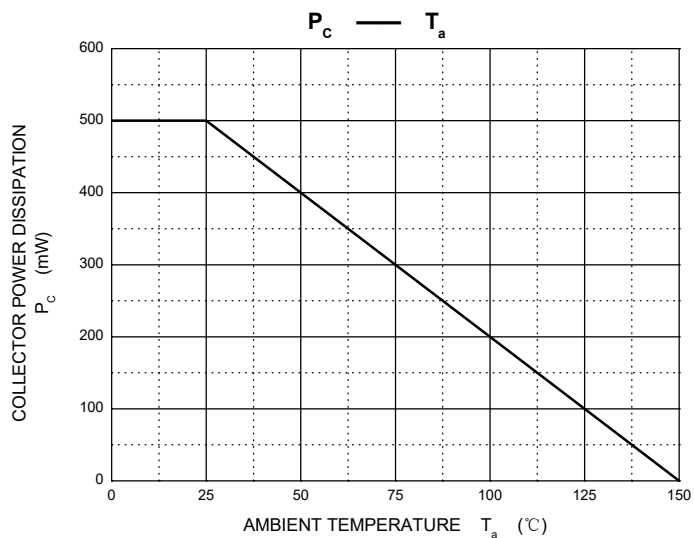
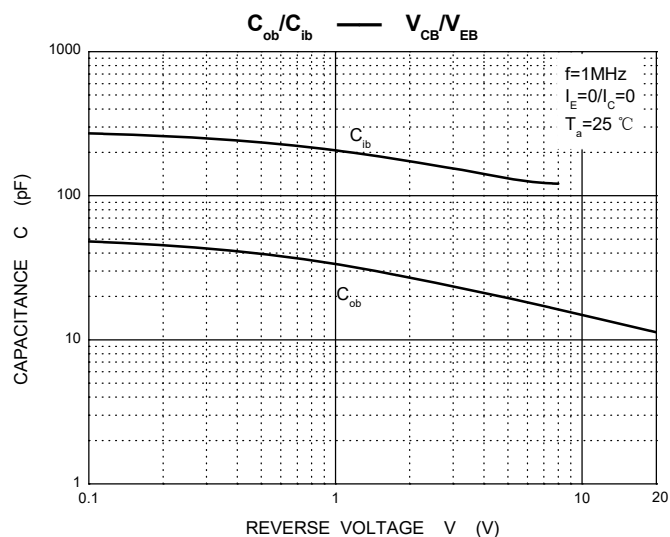
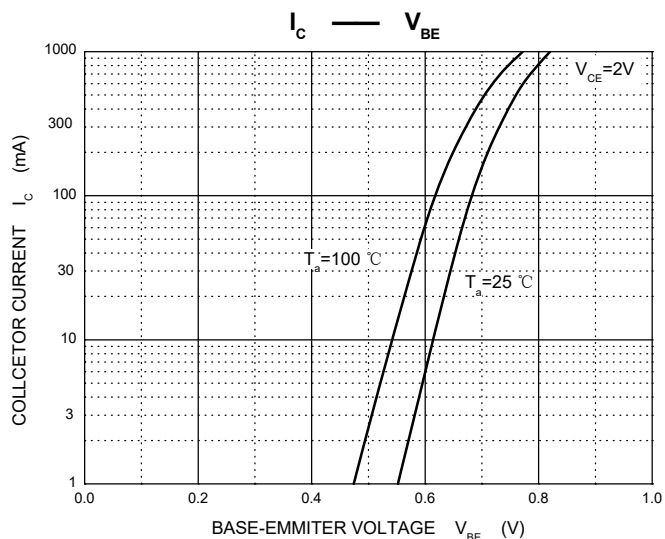
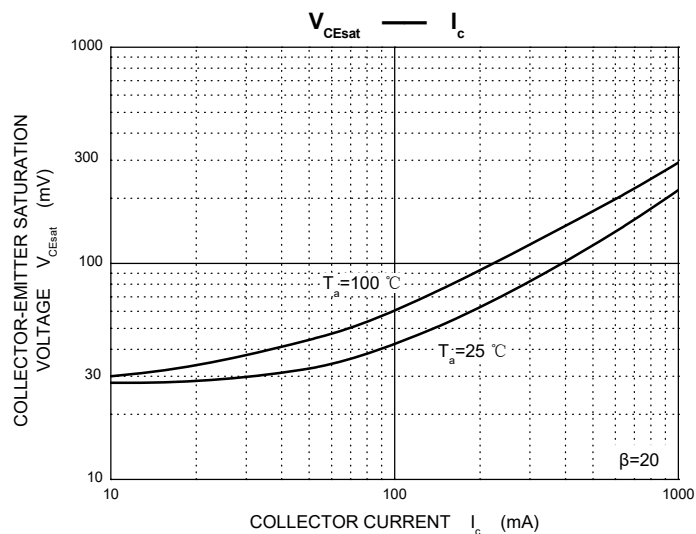
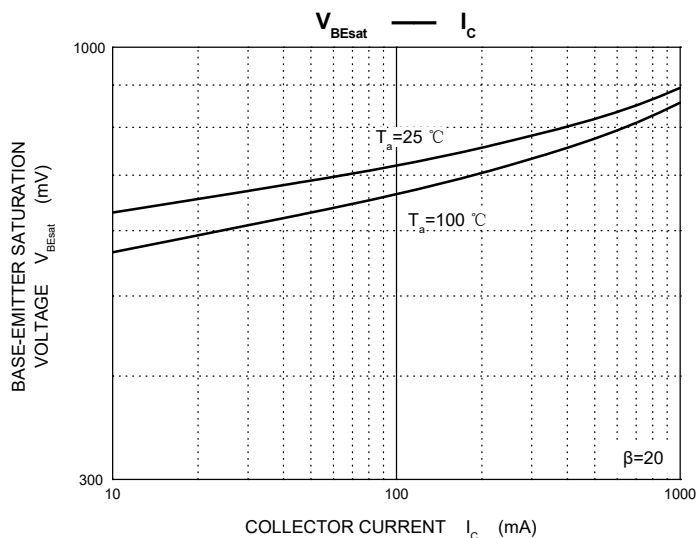


Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=50V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.5A$	120		240	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=2A$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1A, I_B=50mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1A, I_B=50mA$			1.2	V
Transition frequency	f_T	$V_{CE}=2V, I_C=0.5A$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		30		pF

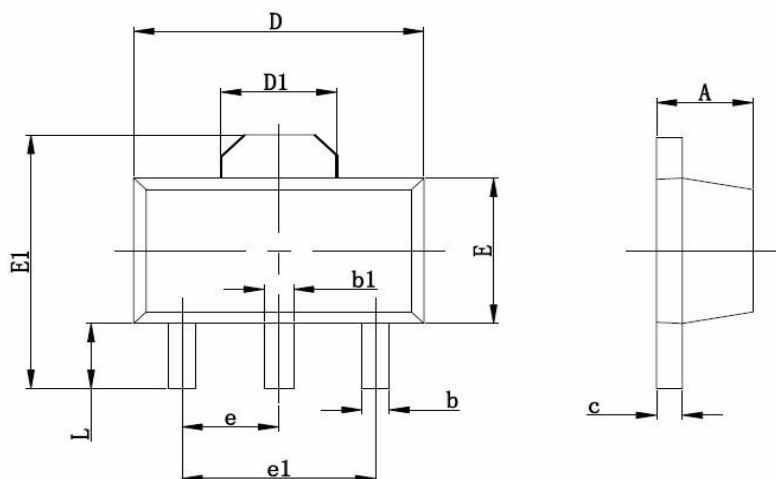
Typical Characteristics







SOT-89(TO-243AA) 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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