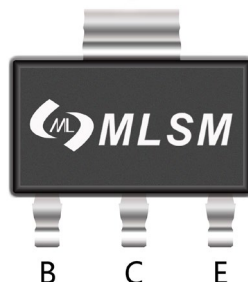
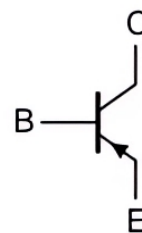


Features

- Low Voltage and Low Current
- Complementary to PZT3904
- General Purpose Amplifier and Switch Application



SOT-223 top view



Schematic diagram



Halogen-Free

Maximum Ratings(Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-200	mA
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

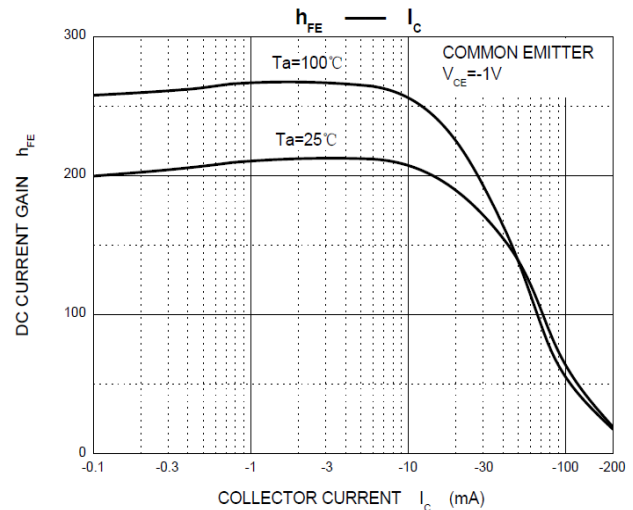
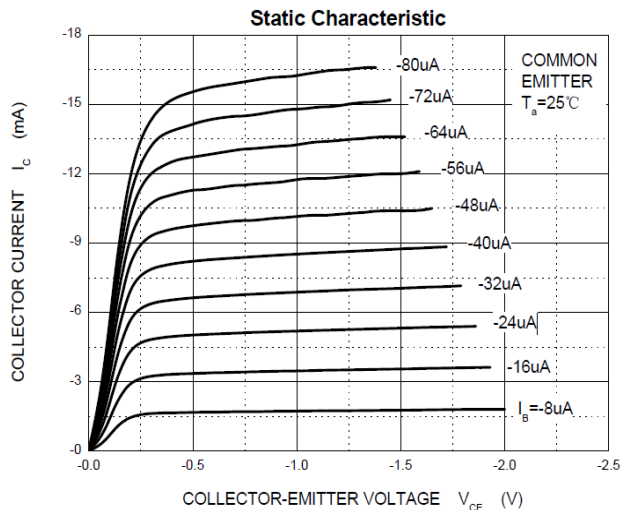
Ordering Information (Example)

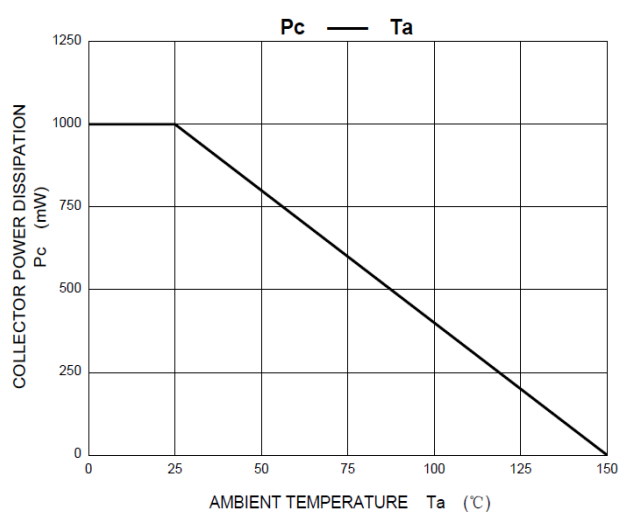
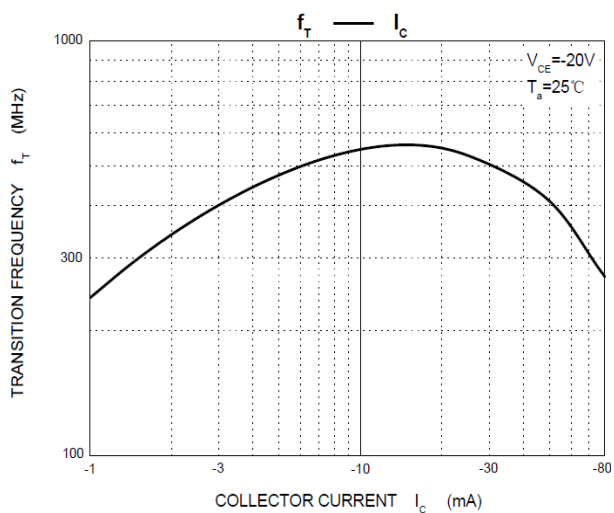
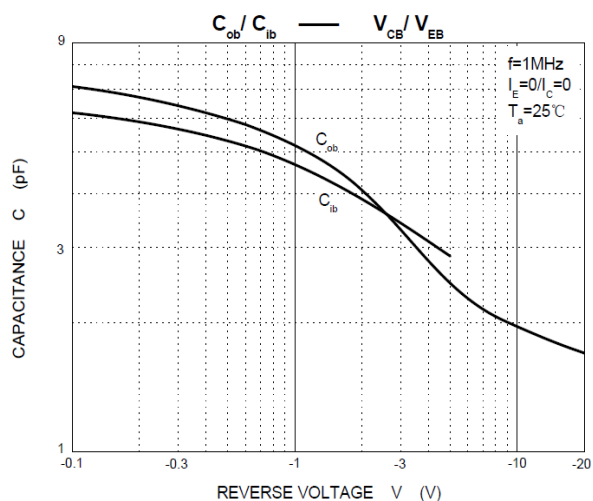
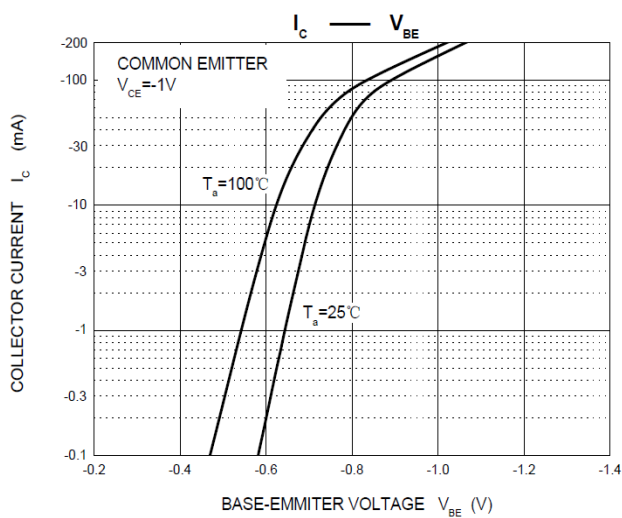
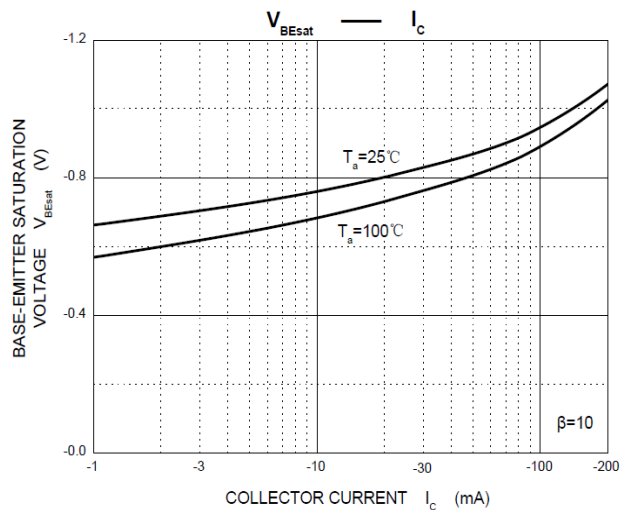
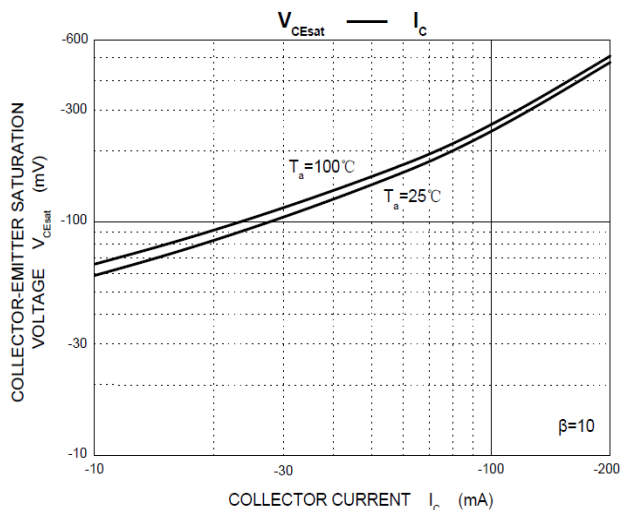
Type	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
PZT3906	2,500	5,000	35,000	13"reel

Electrical Characteristics (T_J=25°C unless otherwise noted)

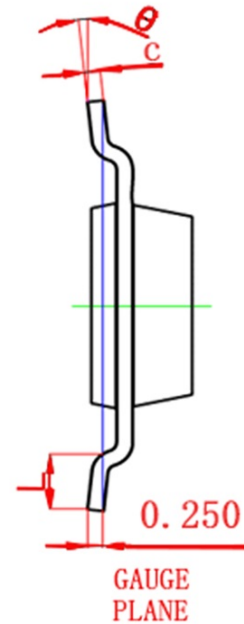
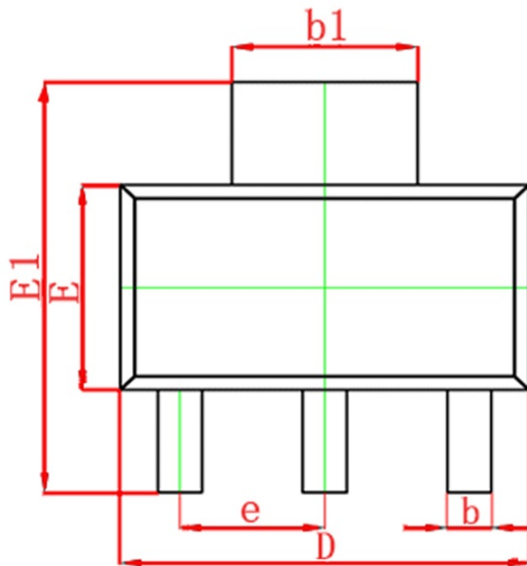
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}^*$	Collector-base breakdown voltage	$I_C=0.01mA, I_E=0$	-40	--	--	V
$V_{(BR)CEO}^*$	Collector-emitter breakdown voltage	$I_C=-1mA, I_B=0$	-40	--	--	V
$V_{(BR)EBO}^*$	Emitter-base breakdown voltage	$I_E=-0.01mA, I_C=0$	-5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB}=-30V, I_E=0$	--	--	-50	nA
I_{CEX}	Collector cut-off current	$V_{CE}=-30V, V_{EB(off)}=-3V$	--	--	-50	nA
h_{FE1}^*	DC current gain	$V_{CE}=-1V, I_C=-0.1mA$	60	--	--	--
h_{FE2}		$V_{CE}=-1V, I_C=-1mA$	80	--	--	
h_{FE3}		$V_{CE}=-1V, I_C=-10mA$	100	--	300	
h_{FE4}		$V_{CE}=-1V, I_C=-50mA$	60	--	--	
$V_{CE(sat)}^*$	Collector-emitter saturation voltage	$I_C=-10mA, I_B=-1mA$	--	--	-0.25	V
		$I_C=-50mA, I_B=-5mA$	--	--	-0.4	V
$V_{BE(sat)}^*$	Base-emitter saturation voltage	$I_C=-10mA, I_B=-1mA$	-0.65	--	-0.85	V
		$I_C=-50mA, I_B=-5mA$	--	--	-0.95	V
t_d	Delay time	$V_{CC}=-3V, V_{BE(off)}=-0.5V$	--	--	35	ns
t_r	Rise time	$I_C=-10mA, I_{B1}=-I_{B2}=-1mA$	--	--	35	
t_s	Storage time	$V_{CC}=-3V, I_C=-10mA$	--	--	225	
t_f	Fall time	$I_{B1}=-I_{B2}=-1mA$	--	--	75	
C_{ob}	Collector output capacitance	$V_{CB}=-5V, I_E=0, f=1MHz$	--	--	4.5	pF
C_{ib}	Emitter input capacitance	$V_{BE}=-0.5V, I_C=0, f=1MHz$	--	--	10	pF
f_T	Transition frequency	$V_{CE}=-20V, I_C=-10mA, f=100MHz$	250	--	--	MHz

*Pulse test: pulse width $\leq 300\mu s$, duty cycles $\leq 2.0\%$.

Typical Characteristics




SOT-223 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	--	1.800	--	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	3.300	3.700	0.130	0.146
E1	6.700	7.300	0.264	0.287
e	2.300(BSC)		0.091(BSC)	
L	0.750	--	0.030	--
θ	0°	10°	0°	10°