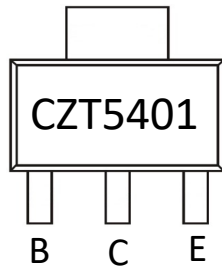
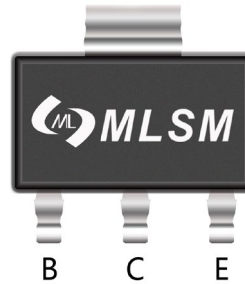


Features

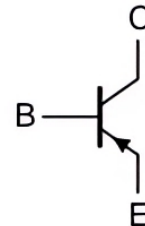
- High Voltage
- High Voltage Amplifier Application



Marking and pin assignment



SOT-223 top view



Schematic diagram



Pb-Free



Halogen-Free

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

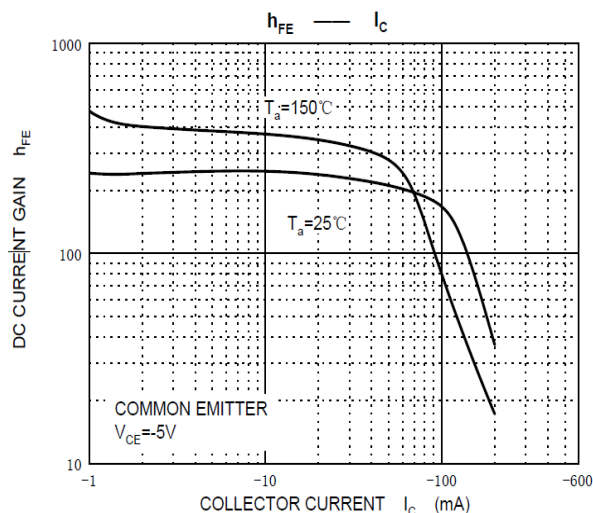
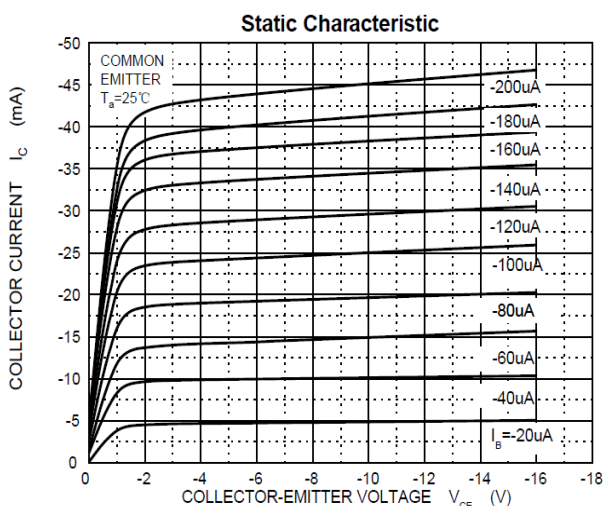
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-600	mA
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

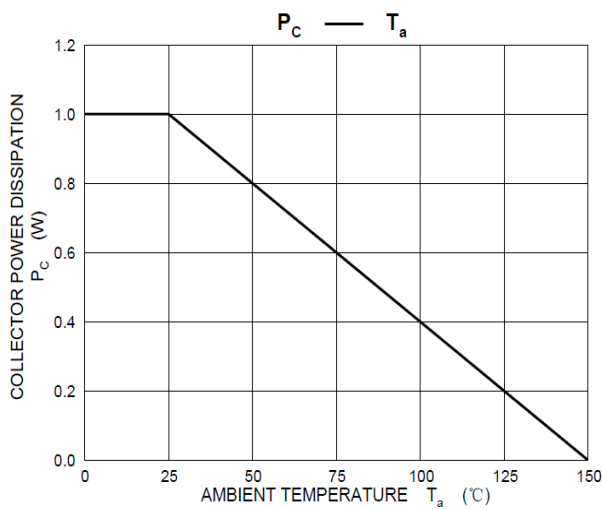
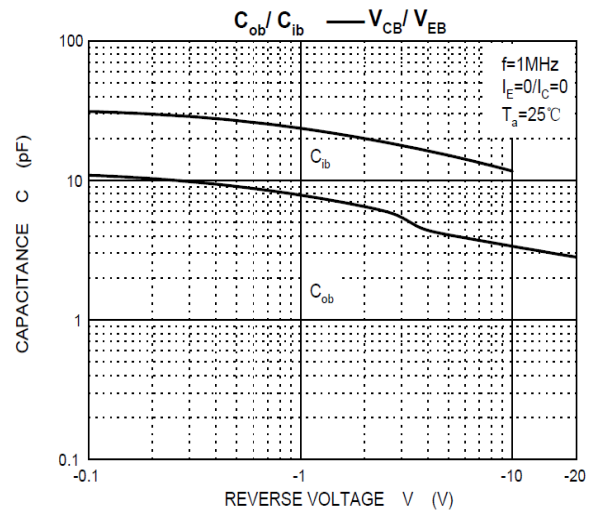
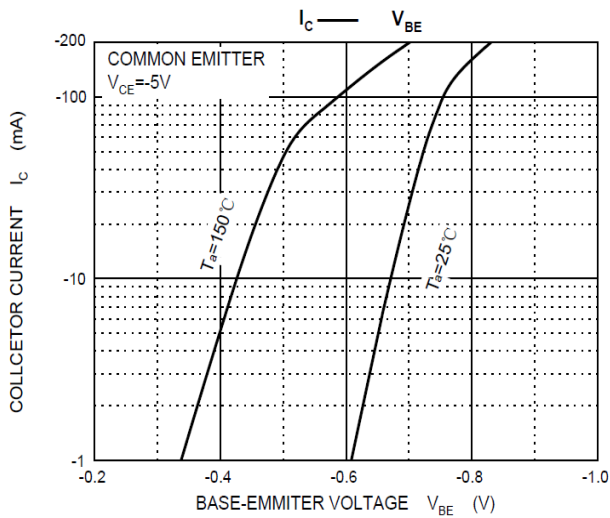
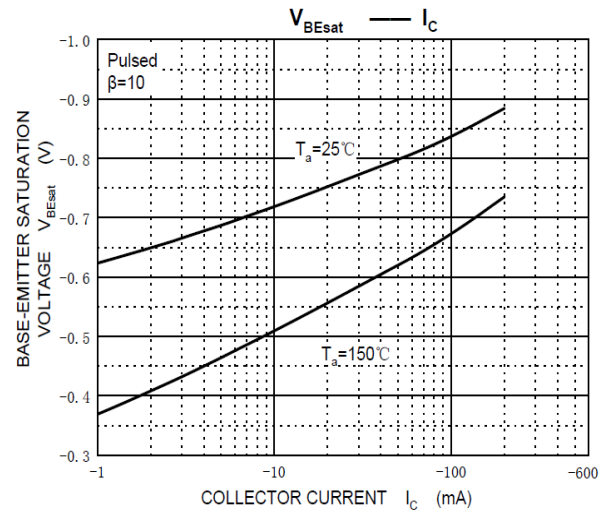
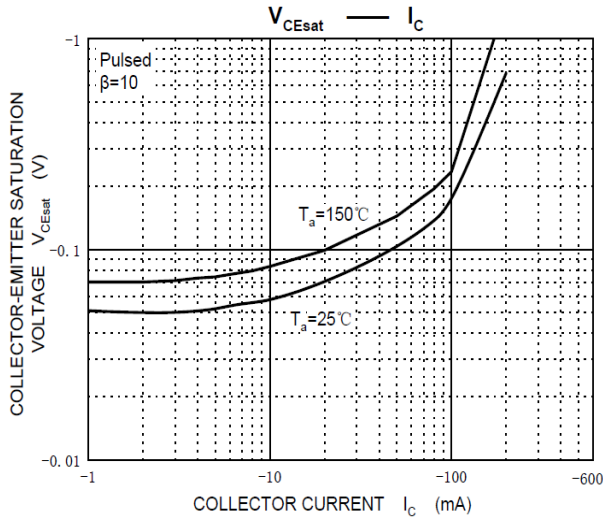
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
CZT5401	SOT-223	CZT5401	2,500	5,000	35,000	13"reel

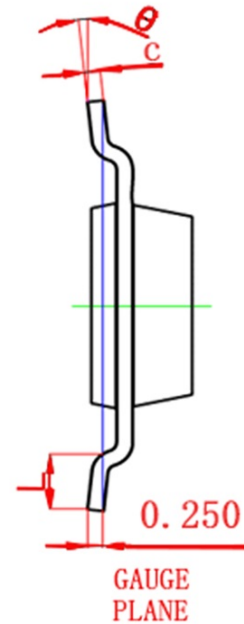
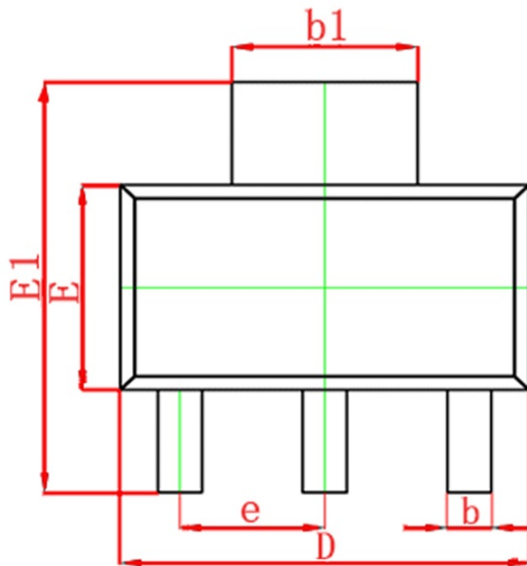
Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = -0.1mA, I_E = 0$	-160	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -1mA, I_B = 0$	-150	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -0.01mA, I_C = 0$	-5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB} = -120V, I_E = 0$	--	--	-50	nA
I_{EBO}	Emitter cut-off current	$V_{CB} = -3V, I_C = 0$	--	--	-50	nA
h_{FE1}	DC current gain	$V_{CE} = -5V, I_C = -1mA$	50	--	--	--
h_{FE2}		$V_{CE} = -5V, I_C = -10A$	100	--	300	
h_{FE3}		$V_{CE} = -5V, I_C = -50mA$	50	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = -10mA, I_B = -1mA$	--	--	-0.2	V
		$I_C = -50mA, I_B = -5mA$	--	--	-0.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C = -10mA, I_B = -1mA$	--	--	-1	V
		$I_C = -50mA, I_B = -5mA$	--	--	-1	V
f_T	Transition frequency	$V_{CE} = -10V, I_C = -10mA, f = 100MHz$	100	--	300	MHz
C_{ob}	Collector output capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$	--	--	6	pF

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°