

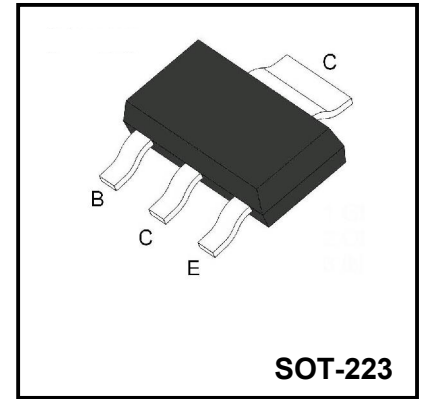
**NPN Plastic-Encapsulate Transistors**

**Applications**

➤ Linear and switching industrial application

**Features**

➤ Complementary to CZT32C



**Absolute Maximum Rating (Ta=25°C)**

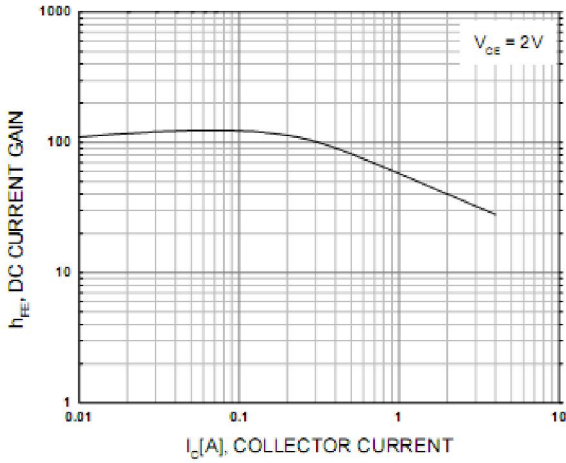
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$BV_{CBO}$	100	V
Collector-Emitter Voltage	$BV_{CEO}$	100	V
Emitter-Base Voltage	$BV_{EBO}$	5	V
Collector Current(DC)	$I_C$	3	A
Collector peak current	$I_{CM}$	5	A
Collector Dissipation	$P_C$	2	W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-65~150	°C

**Electrical Characteristics (Ta=25°C)**

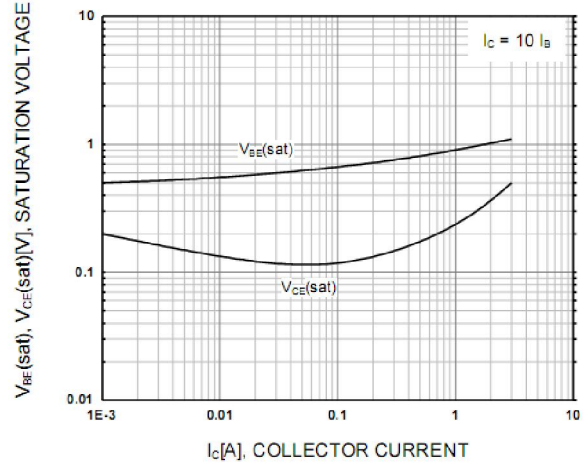
Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 30mA, I_B = 0$	100			V
Collector cut-off current	$I_{CEO}$	$V_{CE} = 60V, I_E = 0$			0.3	mA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5V, I_E = 0$			1	mA
Collector cut-off current	$I_{CES}$	$V_{CE} = 100V, V_{BE} = 0$			0.2	mA
DC current gain*	$h_{FE}$	$V_{CE} = 4V, I_C = 1A$ $V_{CE} = 4V, I_C = 3A$	25 10		100	
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = 3A, I_B = 375mA$			1.2	V
Base-Emitter ON Voltage*	$V_{BE(on)}$	$V_{CE} = 4V, I_C = 3A$			1.8	V
Current Gain Bandwidth Product*	$f_T$	$V_{CE} = 10V, I_C = 500mA$	3.0			MHz

\* Pulse Test :  $PW \leq 300\mu s$ , Duty cycle  $\leq 2\%$

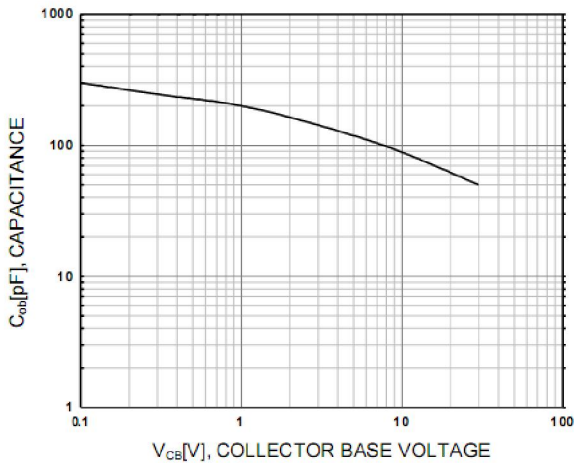
**Electrical characteristics**



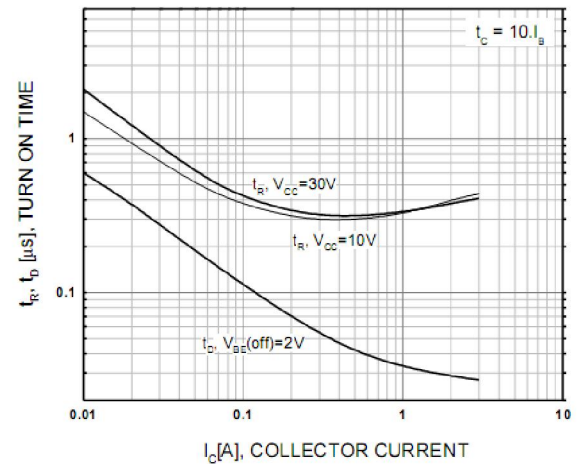
**Figure 1. DC current Gain**



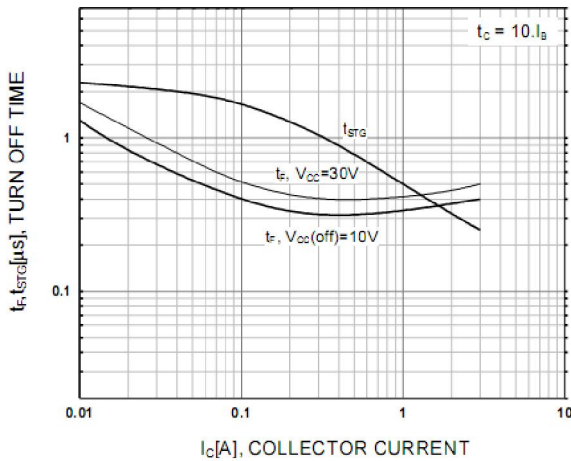
**Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



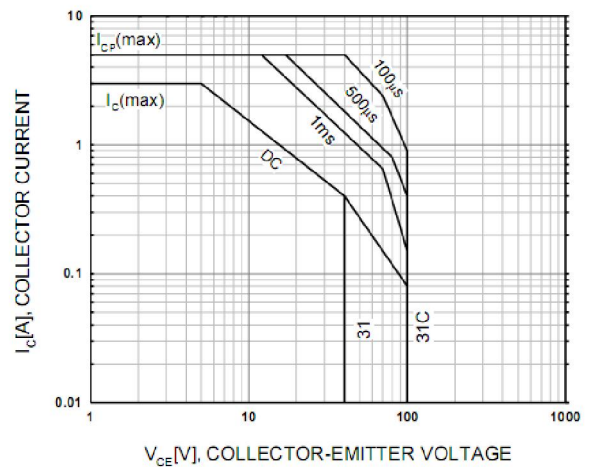
**Figure 3. Collector Capacitance**



**Figure 4. Turn On Time**



**Figure 5. Turn Off Time**



**Figure 6. Safe Operating**

	Symbol	Millimeter		Inches	
		Min.	Max.	Min.	Max.
	A	1.50	1.80	0.059	0.071
	A1	0.00	0.10	0.000	0.004
	A2	1.50	1.70	0.059	0.067
	b	0.65	0.75	0.026	0.030
	c	0.20	0.30	0.008	0.012
	D	6.40	6.60	0.252	0.260
	D1	2.90	3.10	0.114	0.122
	E	3.30	3.70	0.130	0.146
	E1	6.85	7.15	0.270	0.281
	e	2.20	2.40	0.087	0.094
	e1	4.40	4.80	0.173	0.189
	L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045	

**Summary of Packing Options**

Package	Package Description	Packing Quantity	Industry Standard
SOT-223	Tape/Reel, 13" reel	4000	EIA-481-1