

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- High Voltage Application
- Telephone Application
- Complementary to MMBTA92

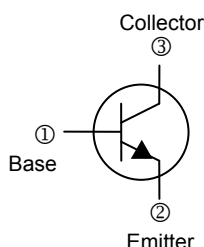
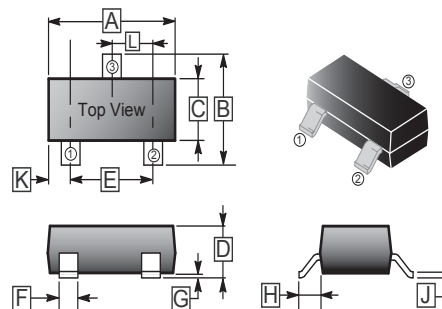
MARKING

1D

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.78	2.04	L	0.89	1.02
F	0.30	0.50			

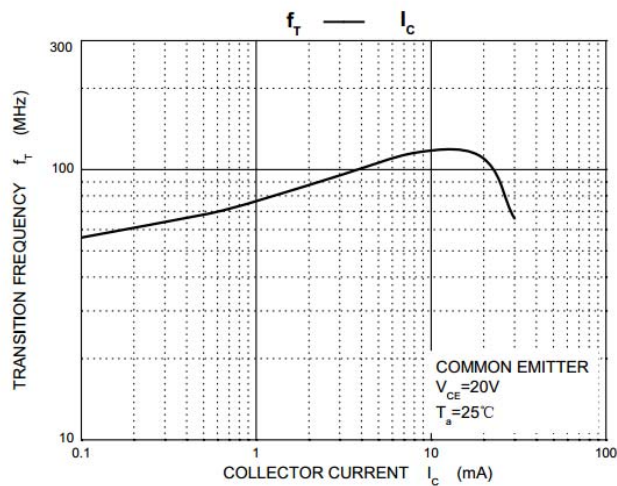
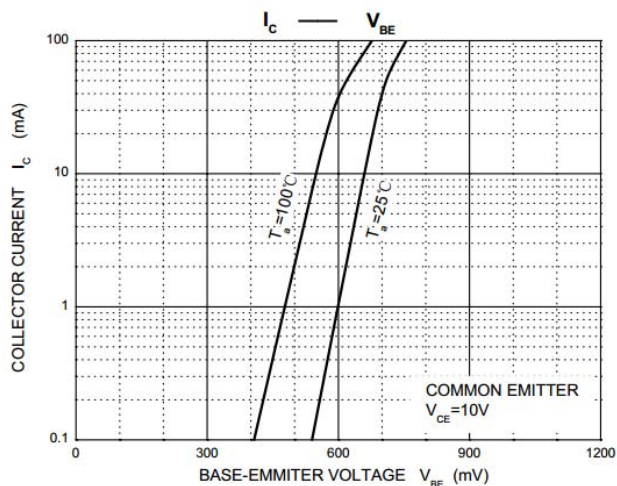
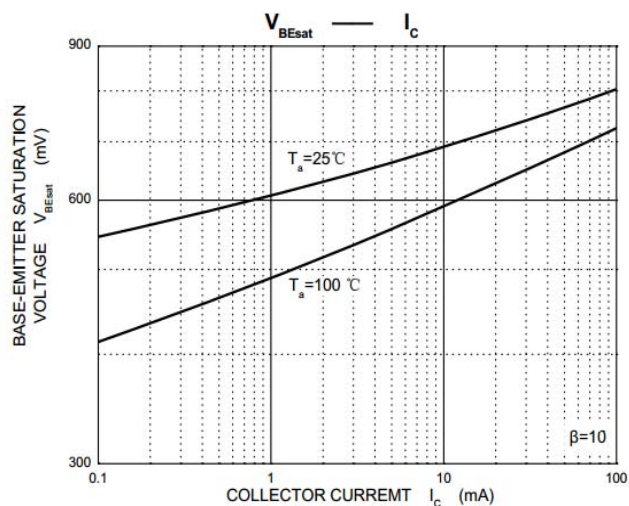
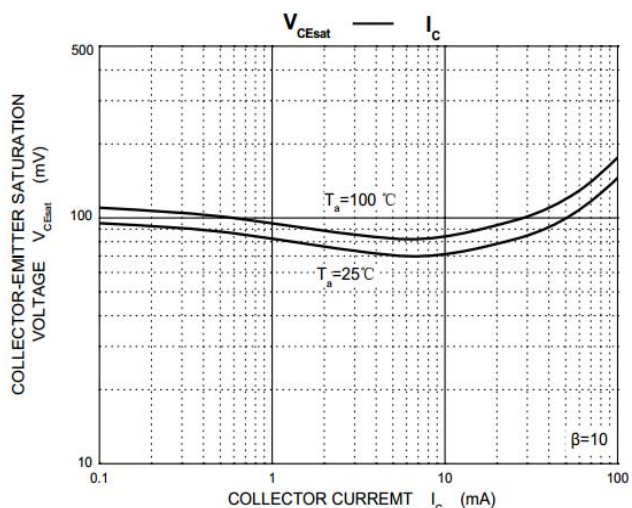
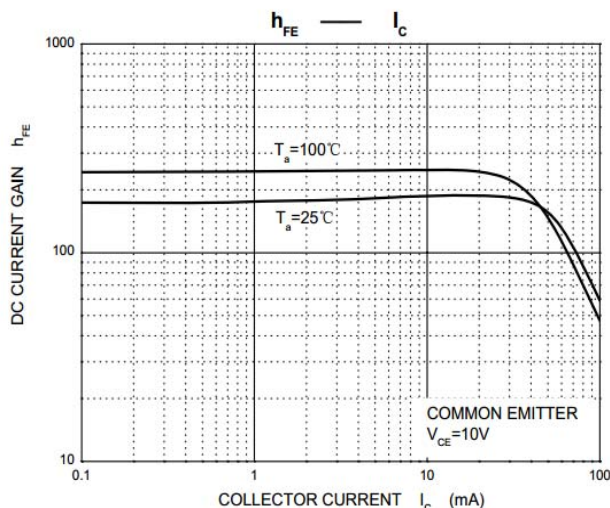
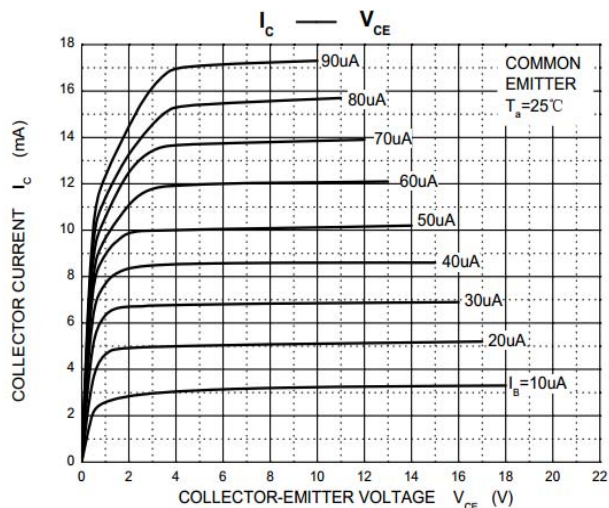
ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	300	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	0.3	A
Collector Current-Peak	I_{CM}	0.5	A
Collector Power Dissipation	P_C	0.35	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	357	$^\circ\text{C} / \text{W}$
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	300	-	V	$I_C=0.1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	300	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	V	$I_E=0.1\text{mA}, I_C=0$
Collector cut-off current	I_{CBO}	-	0.25	μA	$V_{CB}=200\text{V}, I_E=0$
Emitter cut-off current	I_{EBO}	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	h_{FE}	60	-		$V_{CE}=10\text{V}, I_C=1\text{mA}$
		100	200		$V_{CE}=10\text{V}, I_C=10\text{mA}$
		60	-		$V_{CE}=10\text{V}, I_C=30\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	0.2	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	0.9	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Transition Frequency	f_T	50	-	MHz	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=30\text{MHz}$

CHARACTERISTICS CURVE



CHARACTERISTICS CURVE

