

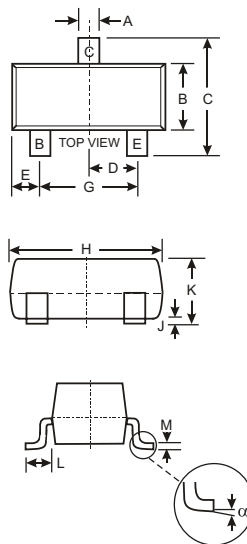
Features

- High Voltage and High speed switch.

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	700	V
Collector Emitter Voltage	V_{CEO}	420	V
Emitter Base Voltage	V_{EBO}	10	V
Collector Current	I_C	150	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$
Junction to Ambient 1)	$R_{\theta JA}$	417	$^\circ\text{C/W}$

1) Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 20\text{ V}$, $I_C = 10\text{ mA}$	h_{FE}	15	-	25	-
Collector Base Cutoff Current at $V_{CB} = 700\text{ V}$	I_{CBO}	-	-	100	μA
Collector Emitter Cutoff Current at $V_{CE} = 420\text{ V}$	I_{CEO}	-	-	100	μA
Emitter Base Cutoff Current at $V_{EB} = 10\text{ V}$	I_{EBO}	-	-	100	μA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	700	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	420	-	-	V
Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$	$V_{(BR)EBO}$	10	-	-	V
Collector Emitter Saturation Voltage at $I_C = 50\text{ mA}$, $I_B = 10\text{ mA}$	$V_{CE(sat)}$	-	-	1.05	V
Base Emitter Saturation Voltage at $I_C = 50\text{ mA}$, $I_B = 10\text{ mA}$	$V_{BE(sat)}$	-	-	1.55	V
Transition Frequency at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$, $f = 1\text{ MHz}$	f_T	5	-	-	MHz
Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	6	-	pF

TYPICAL TRANSIENT CHARACTERISTICS

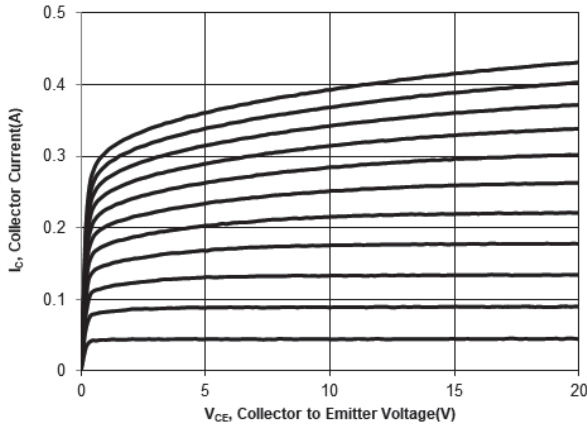


Fig. 1 Output Characteristics Curve

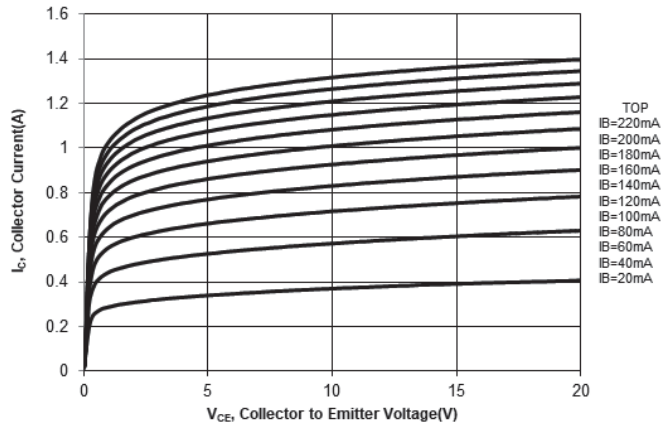


Fig. 2 Output Characteristics Curve

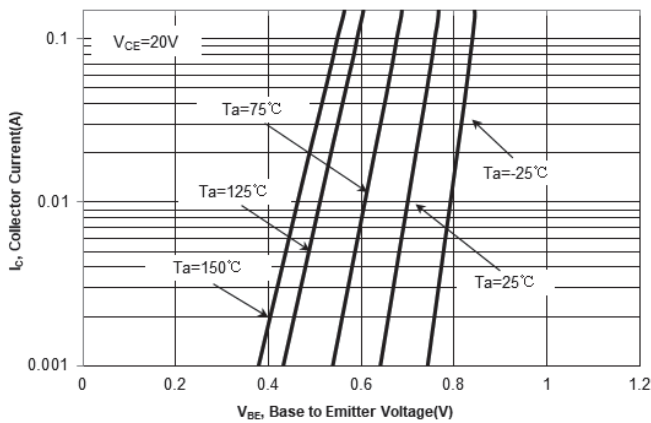


Fig. 3 Collector Current vs. Base to Emitter Voltage

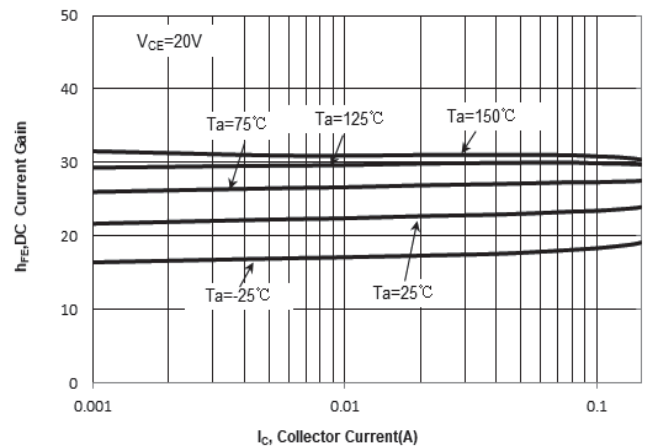


Fig. 4 h_{FE} , DC Current Gain vs. Collector Current

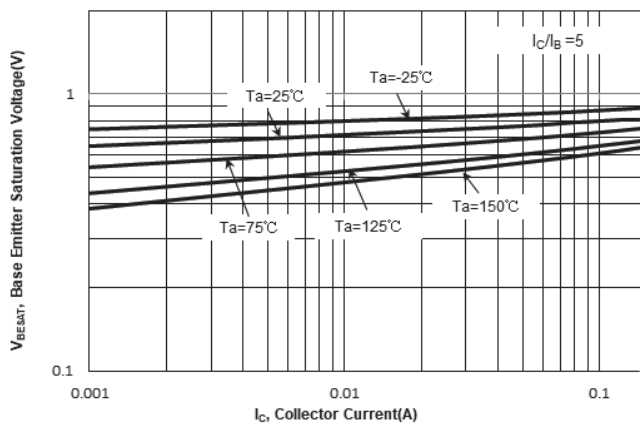


Fig. 5 $V_{BE SAT}$ vs. Collector Current

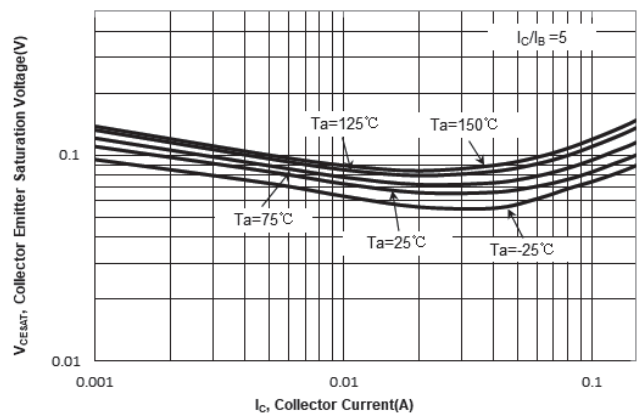


Fig. 6 $V_{CE SAT}$ vs. Collector Current

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