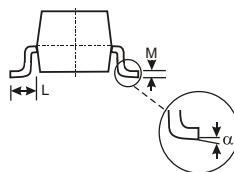
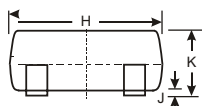
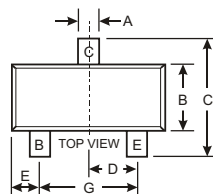


Features

- For Switching and AF Amplifier Applications.
- High Voltage.
- MARKING:3D.

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	350	V
Collector Emitter Voltage	V_{CEO}	350	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	500	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$



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	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain	$V_{CE}=10\text{V}, I_C=1\text{mA}$	h_{FE}	20	-	-	-
	$V_{CE}=10\text{V}, I_C=10\text{mA}$	h_{FE}	30	-	-	-
	$V_{CE}=10\text{V}, I_C=30\text{mA}$	h_{FE}	30	-	200	-
	$V_{CE}=10\text{V}, I_C=50\text{mA}$	h_{FE}	20	-	200	-
	$V_{CE}=10\text{V}, I_C=100\text{mA}$	h_{FE}	15	-	-	-
Collector Base Breakdown Voltage	$I_C=100\mu\text{A}$	BV_{CBO}	350	-	-	V
Collector Emitter Breakdown Voltage	$I_C=1\text{mA}$	BV_{CEO}	350	-	-	V
Emitter Base Breakdown Voltage	$I_E=10\mu\text{A}$	BV_{EBO}	6	-	-	V
Collector Cutoff Current	$V_{CB}=250\text{V}$	I_{CBO}	-	-	50	nA
Emitter Cutoff Current	$V_{EB}=5\text{V}$	I_{EBO}	-	-	50	nA
Collector Base Capacitance	$V_{CB}=20\text{V}, f=1\text{MHz}$	C_{cb}	-	-	6	pF
Base Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$	$V_{BE(sat)}$	-	-	0.75	V
	$I_C=20\text{mA}, I_B=2\text{mA}$	$V_{BE(sat)}$	-	-	0.85	V
	$I_C=30\text{mA}, I_B=3\text{mA}$	$V_{BE(sat)}$	-	-	0.9	V
Collector Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$	$V_{CE(sat)}$	-	-	0.3	V
	$I_C=20\text{mA}, I_B=2\text{mA}$	$V_{CE(sat)}$	-	-	0.35	V
	$I_C=30\text{mA}, I_B=3\text{mA}$	$V_{CE(sat)}$	-	-	0.5	V
	$I_C=50\text{mA}, I_B=5\text{mA}$	$V_{CE(sat)}$	-	-	1	V
Base Emitter On Voltage	$V_{CE}=10\text{V}, I_C=100\text{mA}$	$V_{BE(on)}$	-	-	2	V
Current Gain Bandwidth Product	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=20\text{MHz}$	f_T	40	-	200	MHz

TYPICAL TRANSIENT CHARACTERISTICS

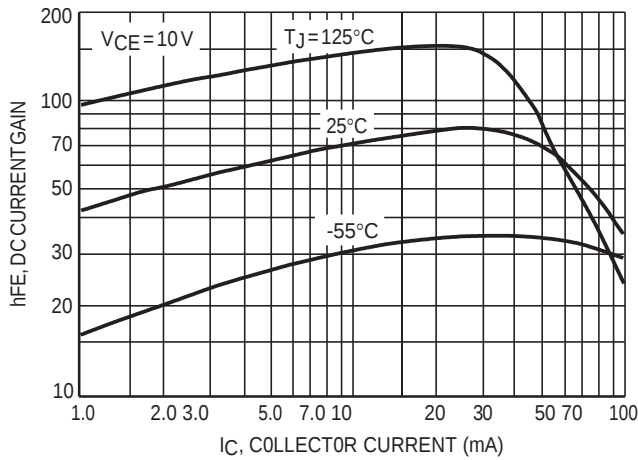


Figure 1. DC Current Gain

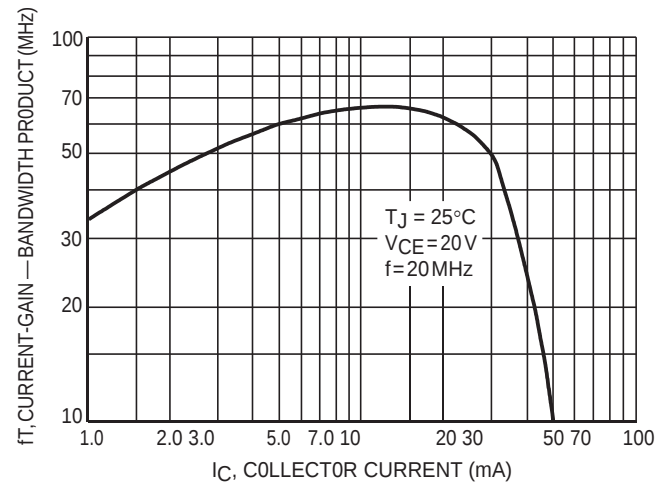


Figure 2. Current-Gain — Bandwidth Product

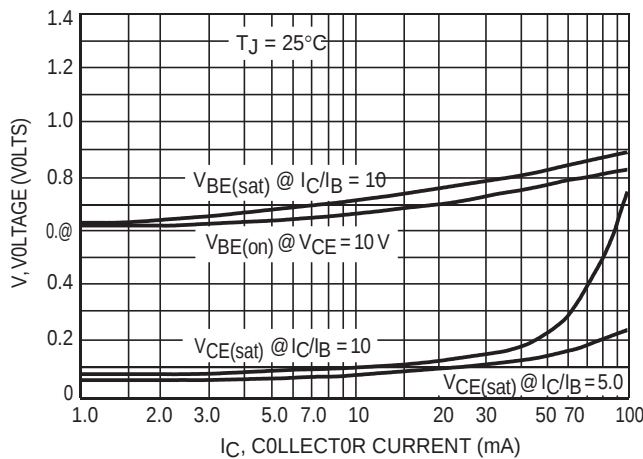


Figure 3. "On" Voltages

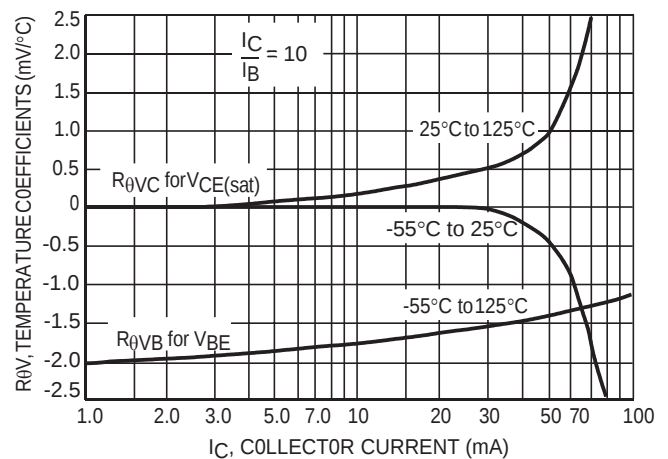


Figure 4. Temperature Coefficients

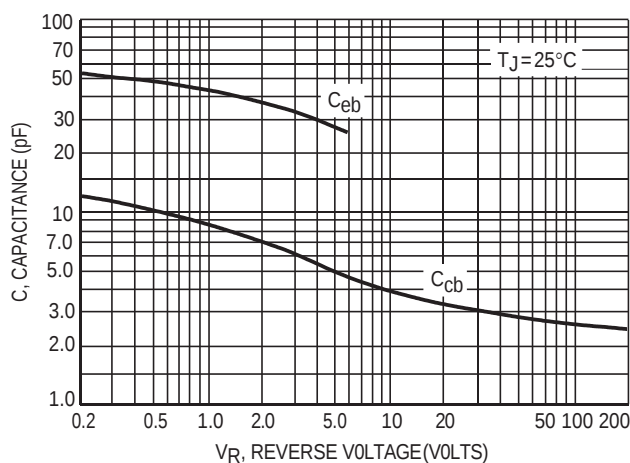


Figure 5. Capacitance

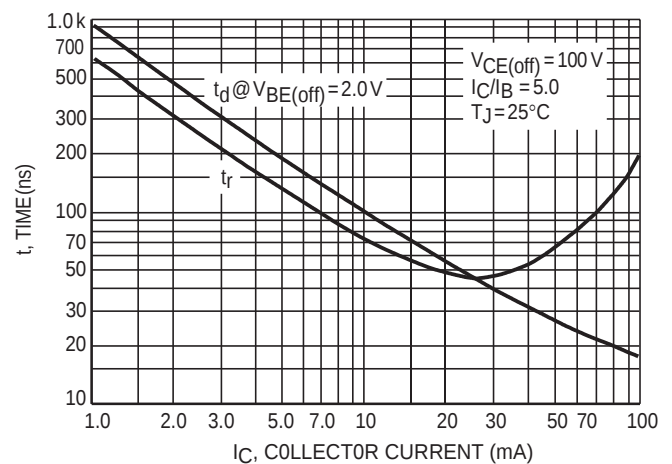


Figure 6. Turn-On Time

TYPICAL TRANSIENT CHARACTERISTICS

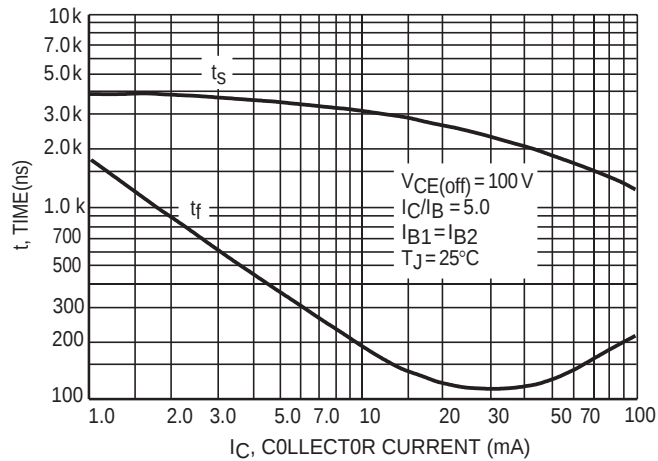


Figure 7. Turn-Off Time

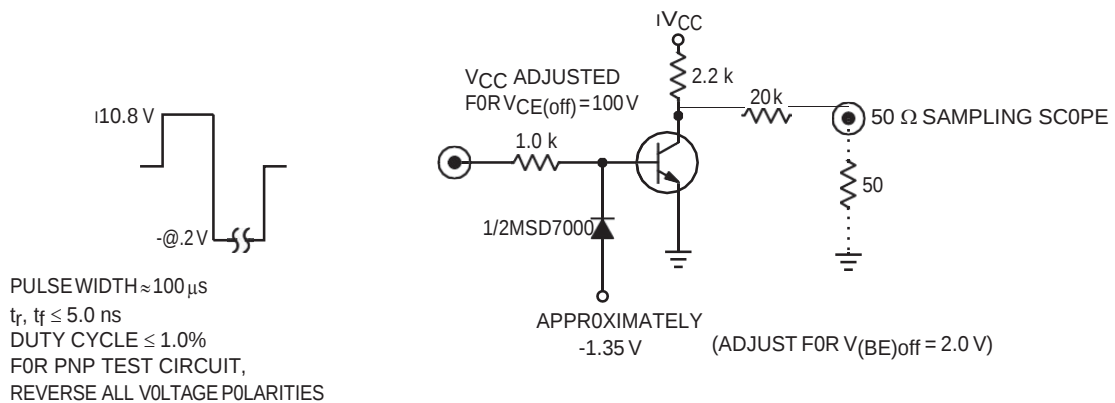


Figure 8. Switching Time Test Circuit

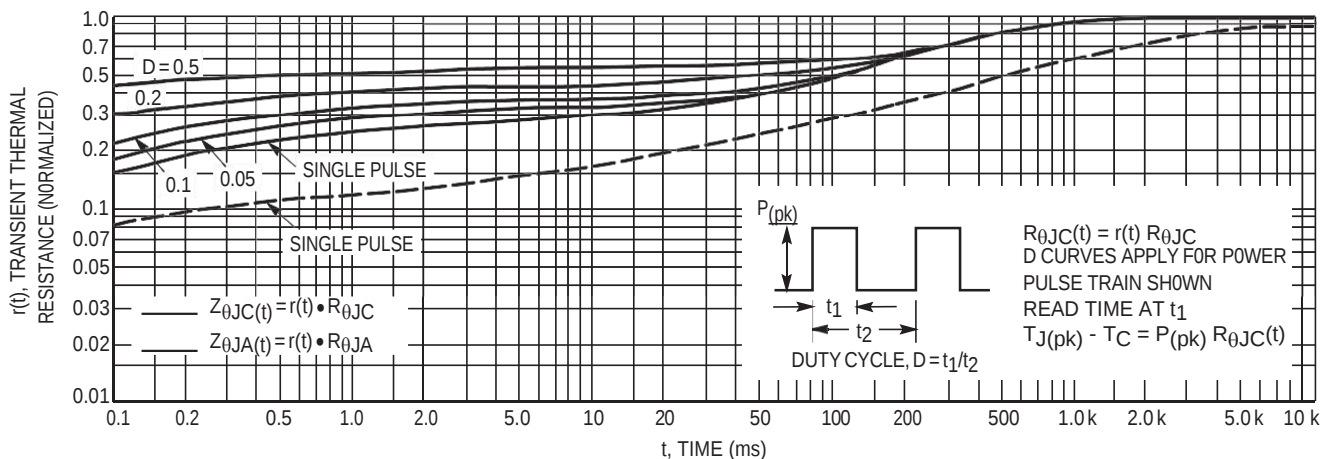


Figure 9. Thermal Response

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