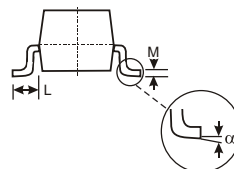
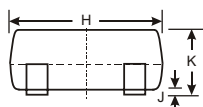
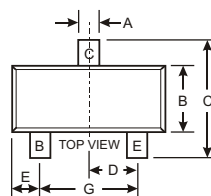


Features

- Low $I_C, I_{C_{MAX}} = -150\text{mA}$.
- Low $V_{CE(SAT)}$.
- Ideal for low-voltage operation.

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	-60	V
Collector Emitter Voltage	V_{CEO}	-50	V
Emitter Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-150	mA
Power Dissipation	P_{tot}	200	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		

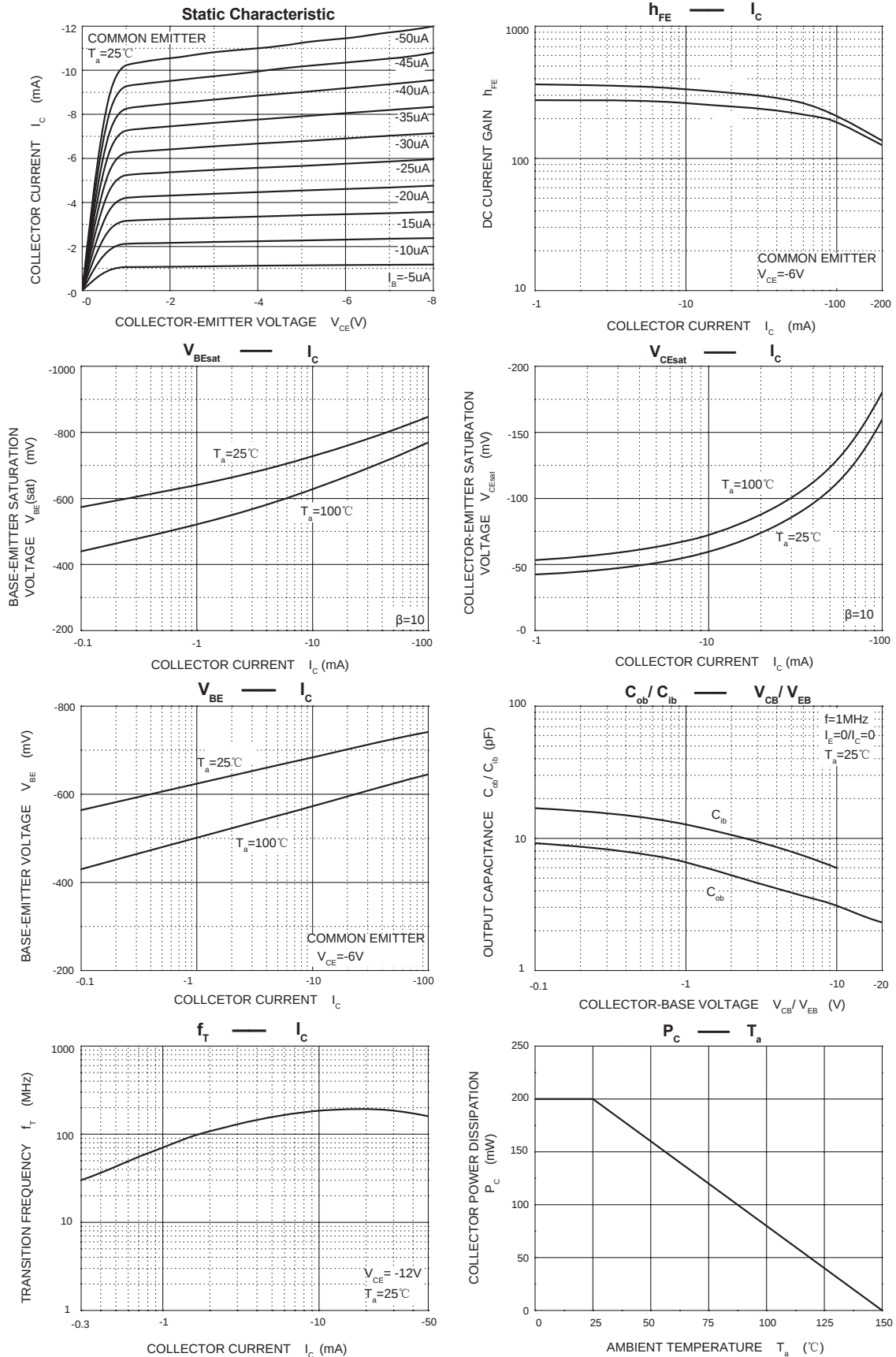
Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu\text{A}, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu\text{A}, I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60\text{V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{V}, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-0.5	V
Transition frequency	f_T	$V_{CE} = -12\text{V}, I_C = -2\text{mA}, f = 30\text{MHz}$		140		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -12\text{V}, I_E = 0, f = 1\text{MHz}$		4.0	5.0	pF

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	120-270	180-390	270-560
Marking	FQ	FR	FS

TYPICAL TRANSIENT CHARACTERISTICS



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