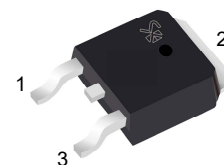


NPN Silicon Epitaxial Planar Transistor

1. Features

- Adoption of FBET,MBIT Processes
- Large Current Capacity and Wide ASO
- Low Collector-to-Emitter Saturation Voltage
- Fast Switching Speed



TO-18

1.Base 2. Collector 3.Emitter

TO-18 Plastic Package

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

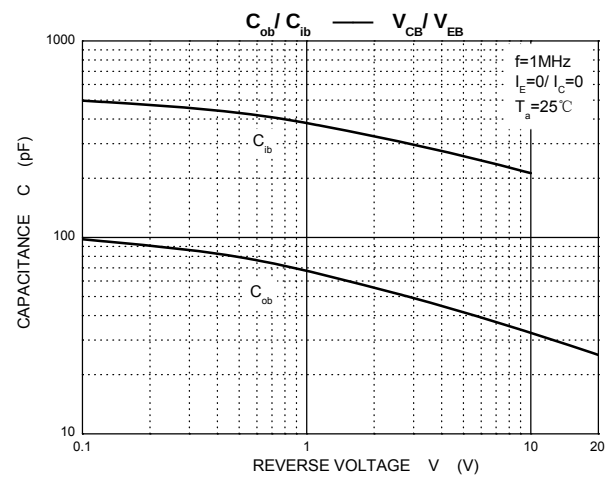
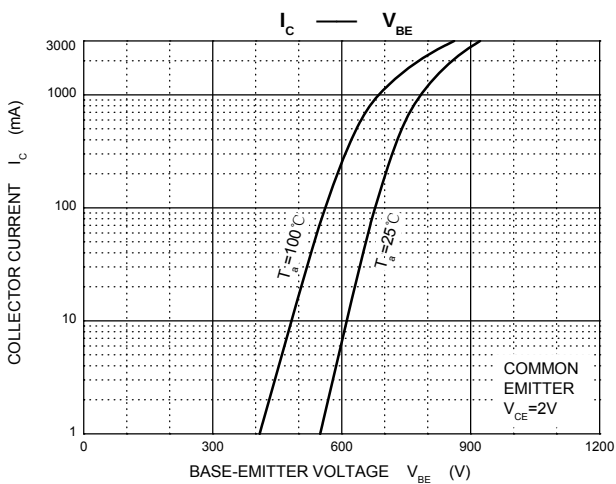
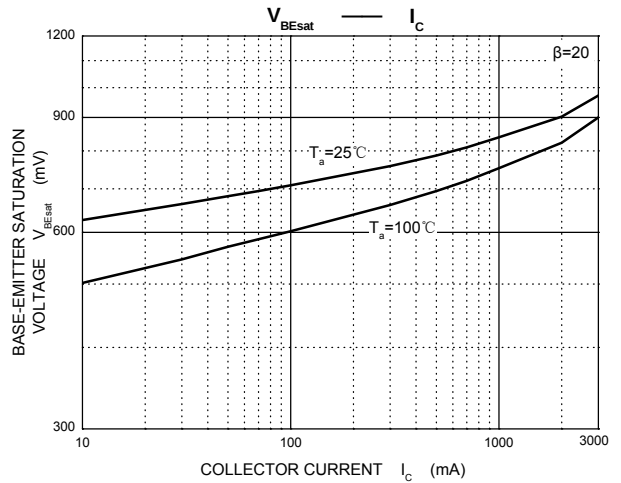
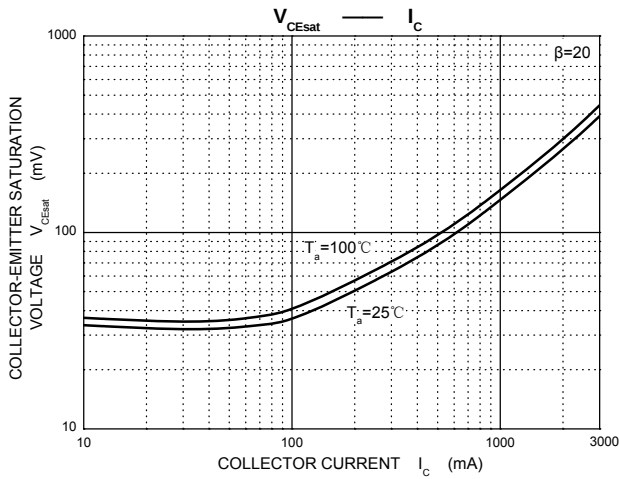
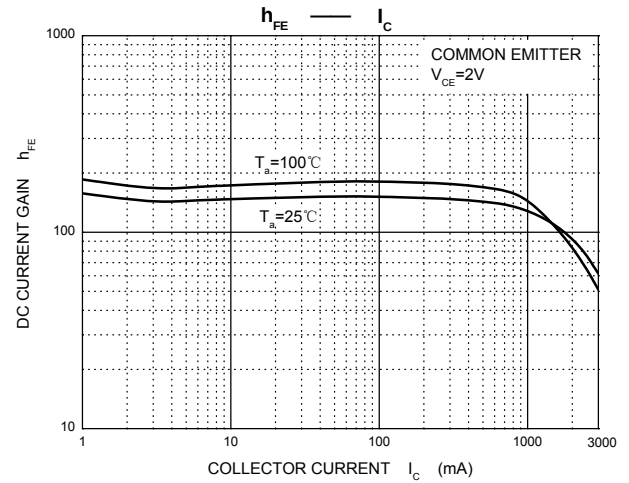
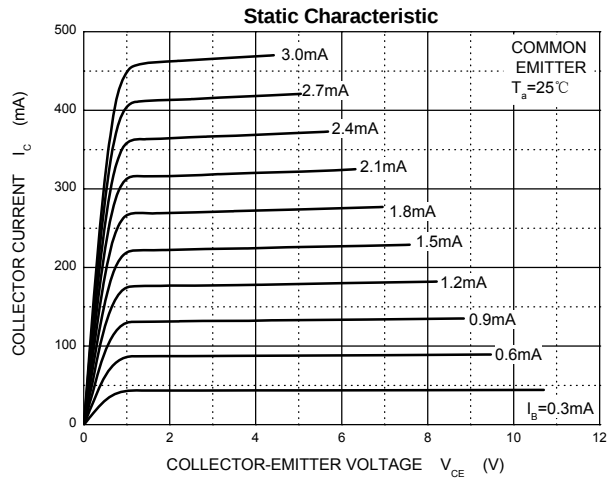
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	1	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 to -150	$^{\circ}\text{C}$

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

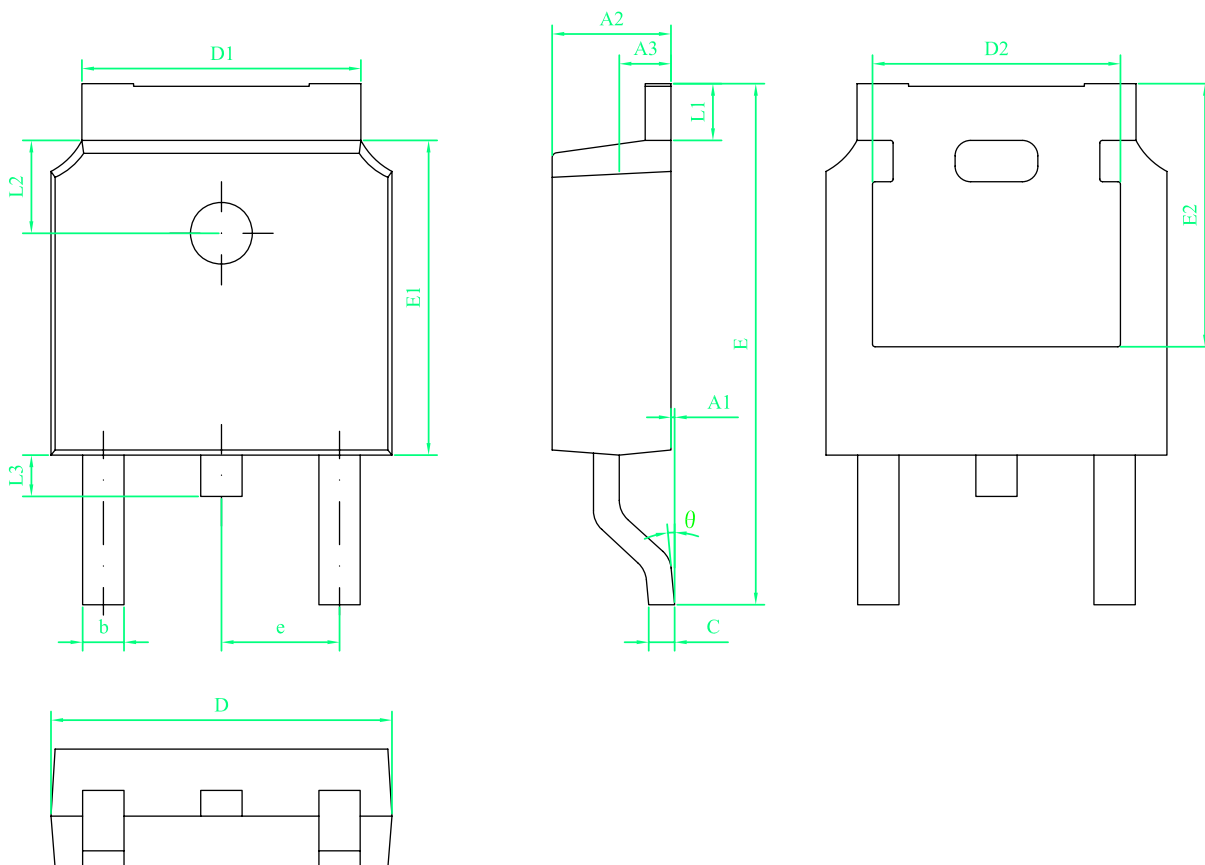
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$, $I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$, $I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=70\text{V}$			0.6	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6\text{V}$			0.6	μA
DC current gain	h_{FE}	$V_{CE}=2\text{V}$, $I_C=100\text{mA}$	100		560	
DC current gain	h_{FE}	$V_{CE}=2\text{V}$, $I_C=3\text{A}$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{A}$, $I_B=100\text{mA}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2\text{A}$, $I_B=100\text{mA}$			1.2	V
Transition frequency	f_T	$V_{CE}=10\text{V}$, $I_C=50\text{mA}$, $f=30\text{MHz}$		150		MHz
Output capacitance	C_{ob}	$V_{CE}=10\text{V}$, $I_C=0$, $f=1\text{MHz}$		25		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560



TO-252 PACKAGE OUTLINE



符号	尺寸	
	Min	Max
A1	0.00	0.13
A2	2.18	2.39
A3	0.90	1.10
b	0.65	0.85
c	0.46	0.61
D	6.35	6.73
D1	4.95	5.46
D2	4.32	
E	9.40	10.41
E1	5.97	6.22
E2	5.21	
e	2.286 BSC	
L1	0.89	1.27
L2	1.70	1.90
L3	0.60	1.00
θ	0.00	8.00