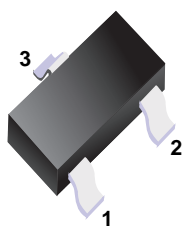


■ NPN Transistors

■ Marking

Marking	J3Y
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- 1.Base
- 2.Emitter
- 3.Collector

■ Simplified outline(SOT-523)

■ Absolute Maximum Ratings Ta = 25°C

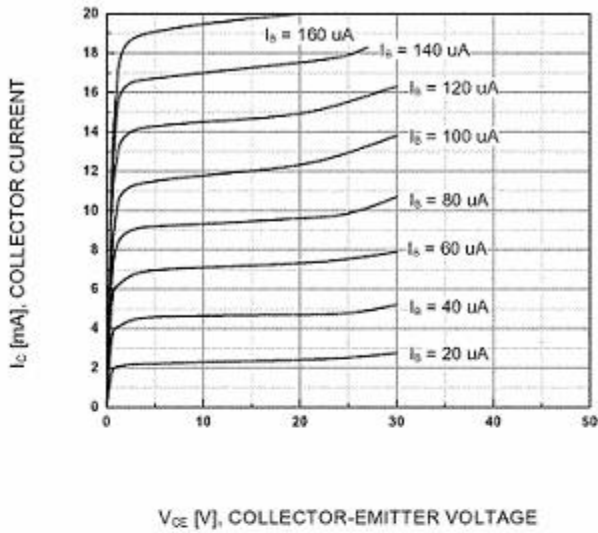
Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	40	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	0.5	A
P _C	Collector Dissipation	0.2	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

■ Electrical Characteristics Ta = 25°C

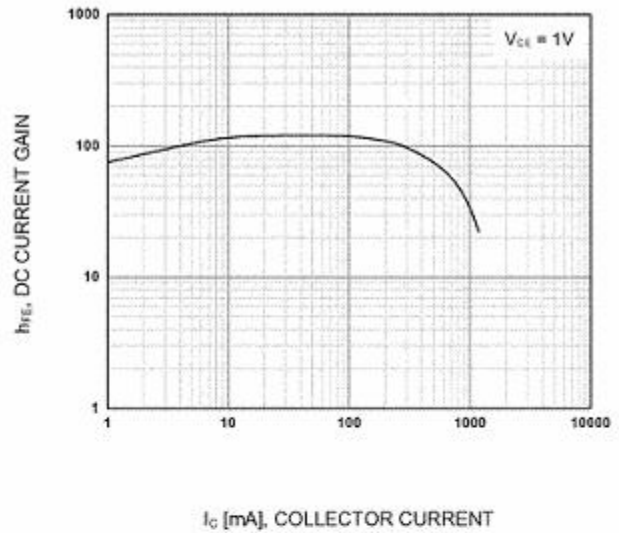
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 100μA, I _E =0	40			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	25			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =40 V, I _E =0			0.1	μA
Collector cut-off current	I _{CEO}	V _{CB} =20V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0			0.1	μA
DC current gain	H _{FE(1)}	V _{CE} =1V, I _C = 50mA	120		400	
	H _{FE(2)}	V _{CE} =1V, I _C = 500mA	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500 mA, I _B = 50mA			0.6	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =500 mA, I _B = 50mA			1.2	V
Transition frequency	f _T	V _{CE} =6V, I _C = 20mA f=30MHz	150			MHz

■ Classification of hfe

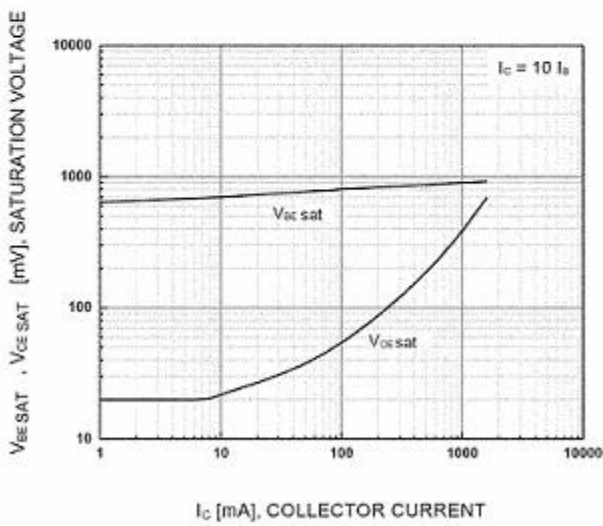
Rank	L	H	J
Range	120-200	200-350	300-400



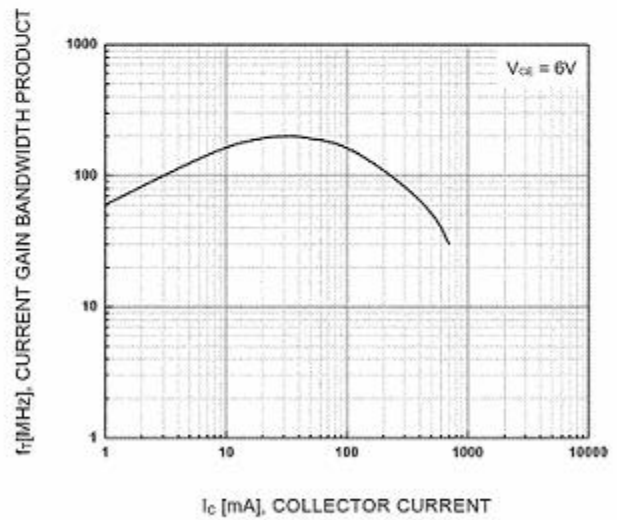
Static Characteristic



DC current Gain

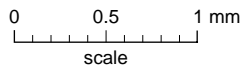
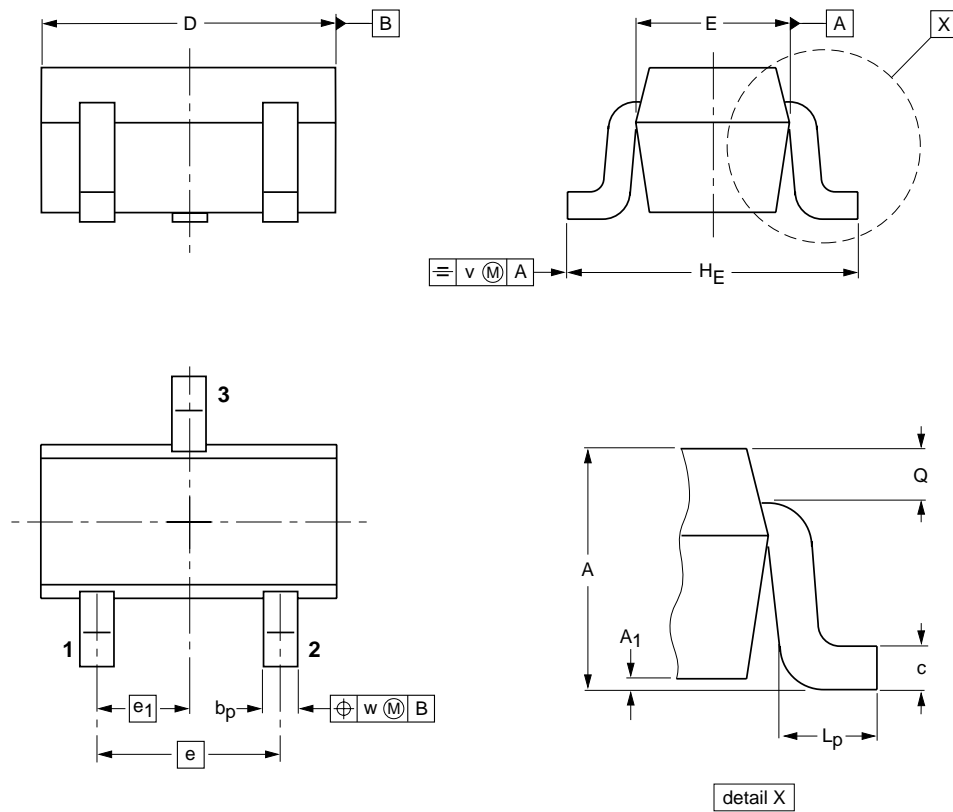


**Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**



Current Gain Bandwidth Product

■ SOT-523



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	0.95 0.60	0.1	0.30 0.15	0.25 0.10	1.8 1.4	0.9 0.7	1	0.5	1.75 1.45	0.45 0.15	0.23 0.13	0.2	0.2