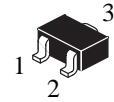


NPN TRANSISTOR
 **Lead(Pb)-Free**

SOT-523(SC-75)
FEATURES:

- * High current.
- * Low VCE(sat). VCE(sat).250mV at IC = 200mA / IB = 10mA

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Collector-Base Voltage	V _{CBO}	15	V
Collector-Emitter Voltage	V _{CEO}	12	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current –Continuous	I _C	500	mA
Collector Dissipation	P _C	150	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55-150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	MIN	TYP	MAX	UNIT	
Collect or-base breakdown voltage	I _C =10μA, I _E =0	V _{(BR)CBO}	15	-	-	V
Collect or-emitter breakdown voltage	I _C =1mA, I _B =0	V _{(BR)CEO}	12	-	-	V
Emitter- base breakdown voltage	I _E =10μA, I _C =0	V _{(BR)EBO}	6	-	-	V
Collector cut-off current	V _{CB} =15V, I _E =0	I _{CBO}	-	-	0.1	μA
Emitter cut-off current	V _{EB} =6V, I _C =0	I _{EBO}	-	-	0.1	μA
DC current gain	V _{CE} =2V, I _C =10mA	h _{FE}	270	-	680	-
Collector-emitter saturation voltage	I _C =200mA, I _B =10mA	V _{CE(sat)}	-	-	0.25	V
Transitio n frequency	V _{CE} =2V, I _C =10mA, f=100MHz	f _T	-	320	-	MHz
Collect or output capacitance	V _{CB} =10V, I _E =0, f=1MHz	C _{ob}	-	7.5	-	pF

Marking : BX

Typical Characteristics

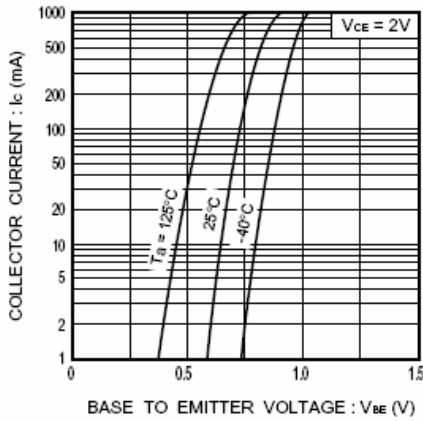


Fig.1 Grounded emitter propagation characteristics

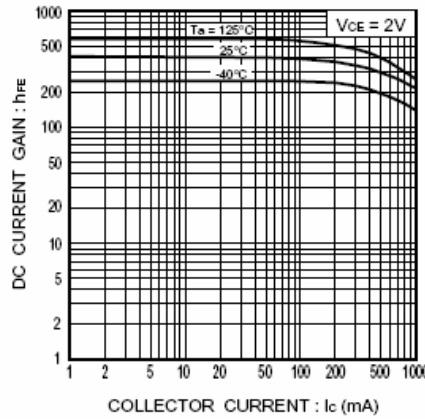


Fig.2 DC current gain vs. collector current

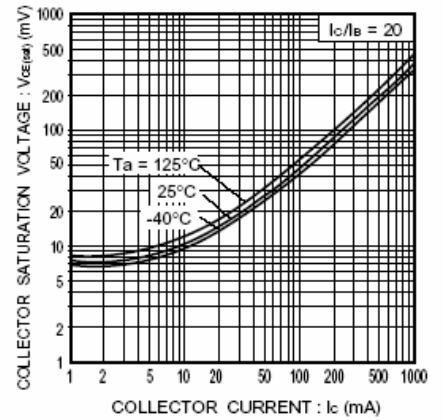


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

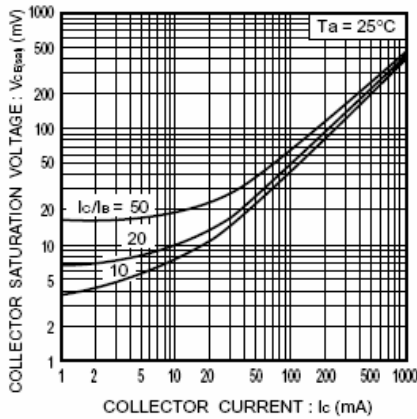


Fig.4 Collector-emitter saturation voltage vs. collector current (II)

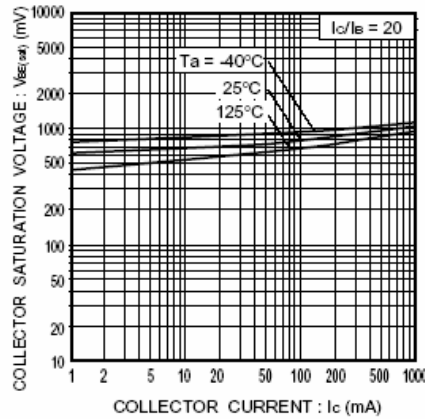


Fig.5 Base-emitter saturation voltage vs. collector current

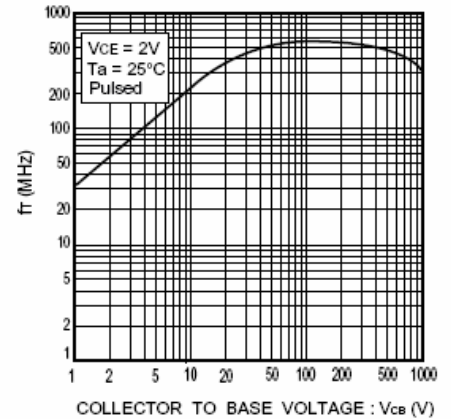


Fig.6 Collector output capacitance Emitter input capacitance vs. base voltage

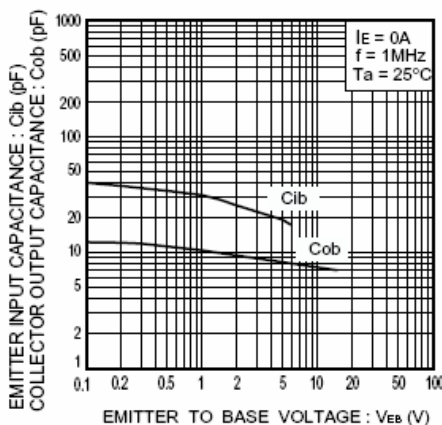
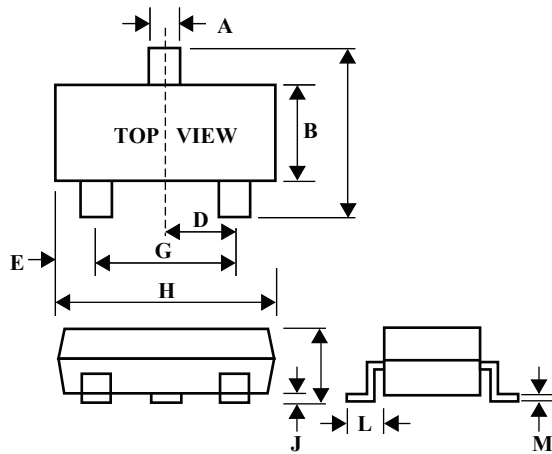


Fig.7 Collector output capacitance vs collector-base voltage Emitter input capacitance vs emitter-base voltage

SOT-523 Outline Dimensions (SC-75)

Unit:mm



SOT-523		
Dim	Min	Max
A	0.30	0.50
B	0.70	0.90
C	1.45	1.75
D	-	0.50
E	0.15	0.40
G	0.80	1.00
H	1.40	1.80
J	0.00	0.10
K	0.70	1.00
L	0.37	0.48
M	0.10	0.25