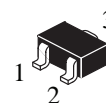


NPN TRANSISTOR

 Lead(Pb)-Free

FEATURES:

- High voltage and high current
- Excellent h_{FE} linearity
- High h_{FE}
- Complementary to 2SA1832



SOT-523(SC-75)

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

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current –Continuous	I_C	150	mA
Collector Dissipation	P_C	100	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55-125	$^\circ\text{C}$

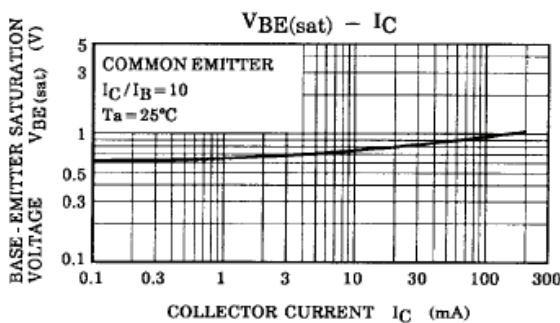
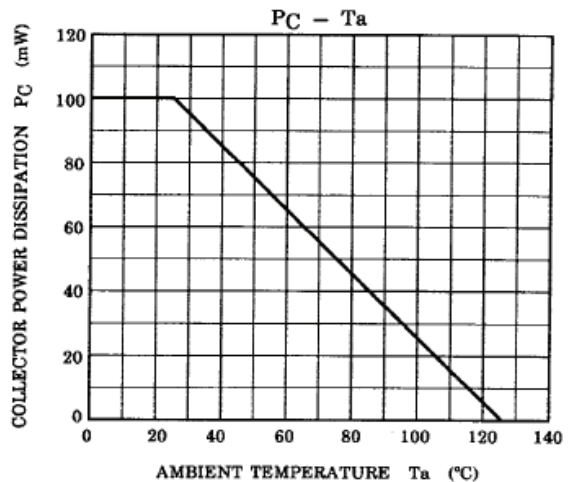
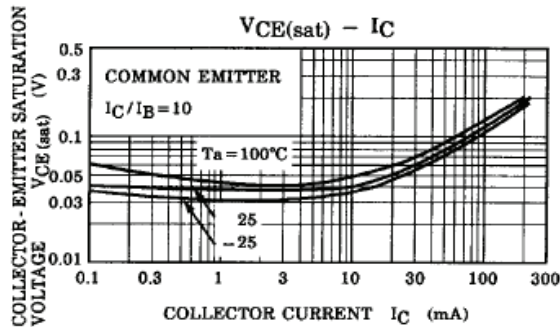
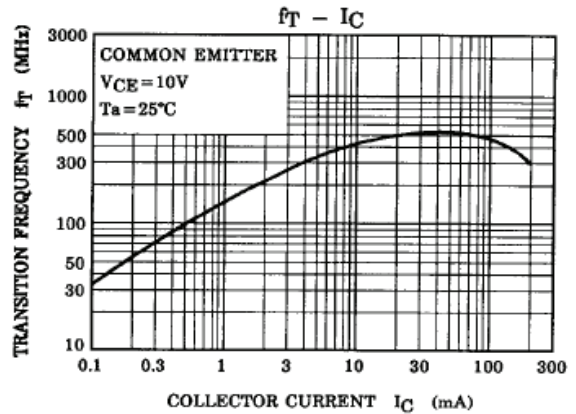
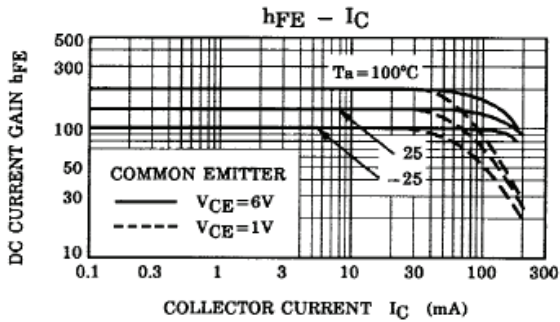
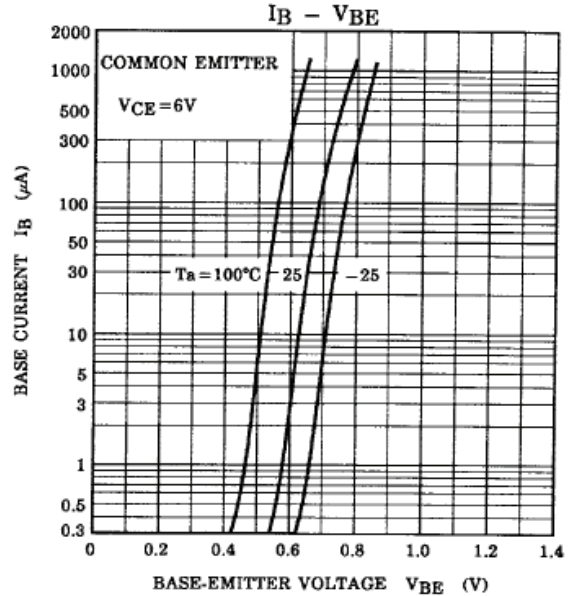
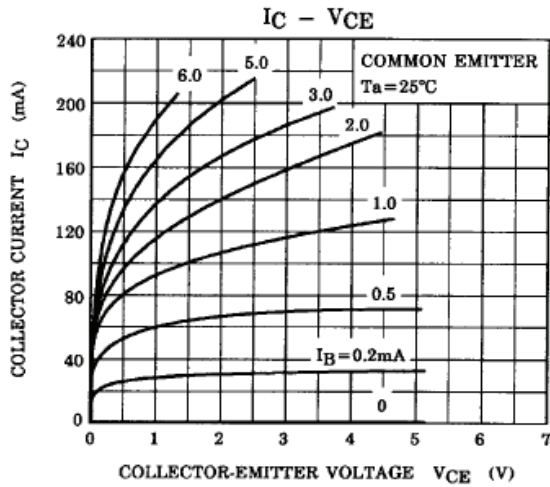
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage $I_C=100\mu\text{A}, I_E=0$	$V_{(BR)CBO}$	60	-	-	V
Collector-emitter breakdown voltage $I_C=1\text{mA}, I_B=0$	$V_{(BR)CEO}$	50	-	-	V
Emitter-base breakdown voltage $I_E=100\mu\text{A}, I_C=0$	$V_{(BR)EBO}$	5	-	-	V
Collector cut-off current $V_{CB}=60\text{V}, I_E=0$	I_{CBO}	-	-	0.1	μA
Emitter cut-off current $V_{EB}=5\text{V}, I_C=0$	I_{EBO}	-	-	0.1	μA
DC current gain $V_{CE}=6\text{V}, I_C=2\text{mA}$	h_{FE}	120	-	700	-
Collector-emitter saturation voltage $I_C=100\text{mA}, I_B=10\text{mA}$	$V_{CE(sat)}$	-	-	0.25	V
Transition frequency $V_{CE}=10\text{V}, I_C=1\text{mA}$	f_T	80	-	-	MHz
Collector output capacitance $V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	C_{ob}	-	-	3.5	pF

CLASSIFICATION OF h_{FE}

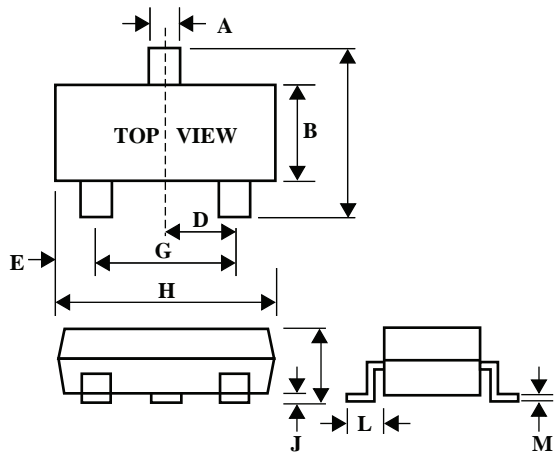
Rank	Y	GR	BL
Range	120-240	200-400	350-700
Marking	LY	LG	LL

Typical Characteristics



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