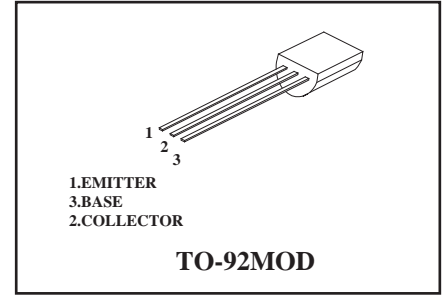
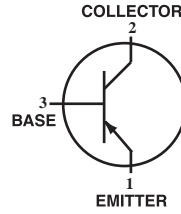


PNP General Purpose Transistors

 Lead(Pb)-Free



MAXIMUM RATINGS(Ta=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CE0}	80	V
Collector-Base Voltage	V_{CBO}	120	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	1000	mA
Total Device Dissipation $T_A=25^\circ\text{C}$	P_D	900	mW
Junction Temperature	T_j	+150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

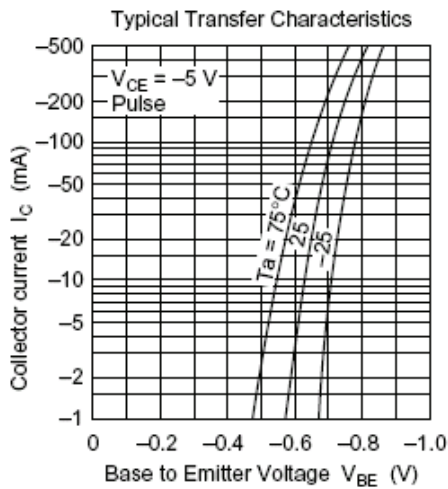
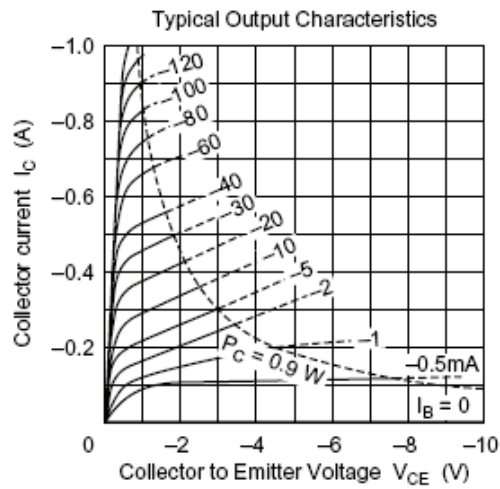
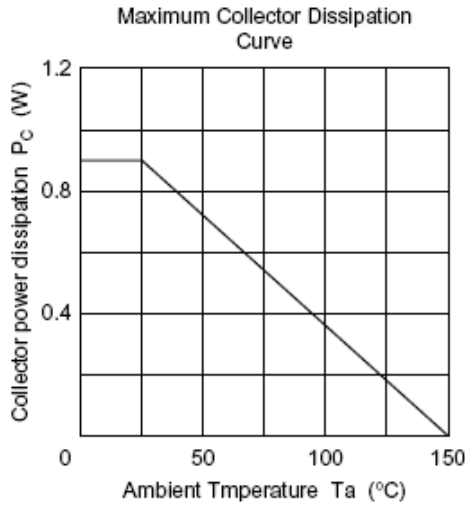
ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

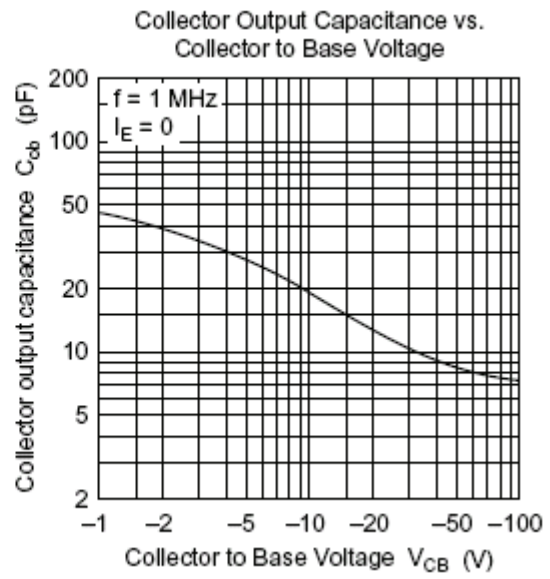
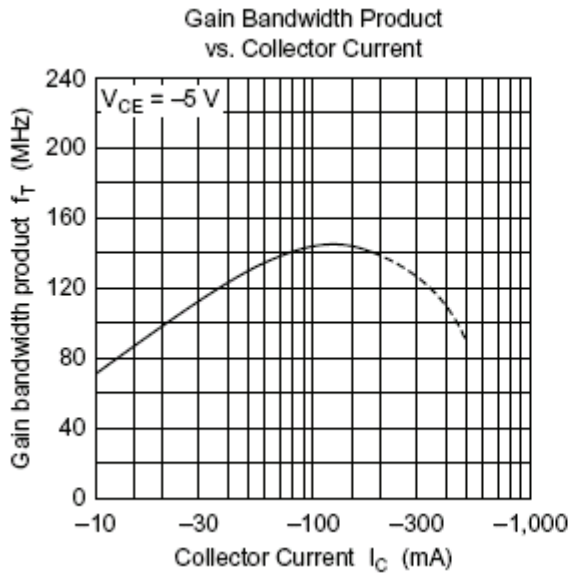
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\text{mA}$, $I_E = 0$	-120	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $I_B = 0$	-80 -100	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\text{mA}$, $I_C = 0$	-5	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -100\text{V}$, $I_E = 0$	-	-10	μA
DC current gain	$h_{FE(1)^*}$	$V_{CE} = -5\text{V}$, $I_C = -150\text{mA}$	60 60	320 200	-
	$h_{FE(2)}$	$V_{CE} = -5\text{V}$, $I_C = -500\text{mA}$	30	-	-
Collector-emitter saturation voltage	V_{CEsat}	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$	-	-1	V
Transition frequency	f_T	$V_{CE} = -5\text{V}$, $I_C = -150\text{mA}$	140	-	MHz
Output capacitance	C_{ob}	$V_{CE} = -10\text{V}$, $I_E = 0$ $f = 1\text{MHz}$	-	20	pF

CLASSIFICATION OF h_{FE}

Rank		B	C	D
Range	2SB647	60-120	100-200	160-320
	2SB647A	60-120	100-200	-

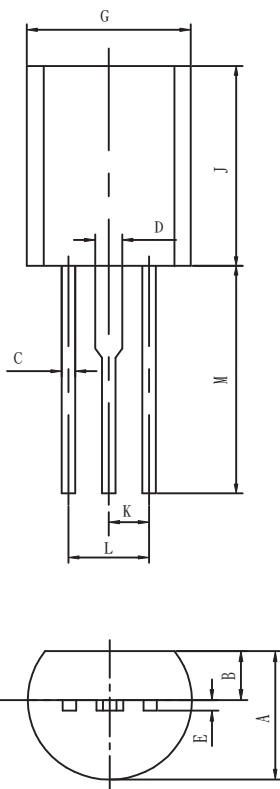
Typical Characteristics





TO-92MOD Outline Dimensions

unit:mm



TO-92MOD		
Dim	Min	Max
A	4.70	5.10
B	1.73	2.03
C	0.40	0.60
D	0.90	1.10
E	0.40	0.50
G	5.80	6.20
J	8.40	8.80
K	1.50Typ	
L	2.90	3.10
M	12.20	13.45