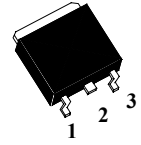


PNP PLASTIC ENCAPSULATE TRANSISTORS

 Lead(Pb)-Free

1.BASE
2.COLLECTOR
3.EMITTER



D-PAK(TO-252)

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

Rating	Symbol	Limits	Unit
Collector-Base Voltage	V _{CB0}	-40	V
Collector-Emitter Voltage	V _{CEO}	-32	V
Emitter-Base Voltage	V _{EBO}	-5.0	V
Collector Current	I _C	-2.0	A
Collector Power Dissipation	P _D	1.5	W
Junction Temperature	T _j	+150	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage I _C =-50μA	BV _{CB0}	-40	-	-	V
Collector-Emitter Breakdown Voltage I _C =-1.0mA	BV _{CEO}	-32	-	-	V
Emitter-Base Breakdown Voltage I _E =-50μA	BV _{EBO}	-5.0	-	-	V
Collector Cutoff Current V _{CB} =-20V	I _{CB0}	-	-	-1.0	μA
Collector Cutoff Current V _{EB} =-4.0V	I _{EBO}	-	-	-1.0	μA

ON CHARACTERISTICS

DC Current Gain $V_{CE}=-3V, I_C=-500mA$	$h_{FE(1)}$	82	-	390	-
Collector-Emitter Saturation Voltage $I_C=-2A, I_B=-200mA$	$V_{CE(sat)}$	-	-	-0.8	V

DYNAMIC CHARACTERISTICS

Transition Frequency $V_{CE}=-5V, I_C=-500mA, f=30MHz$	f_T	-	100	-	MHz
Output Capacitance $V_{CB}=-10V, I_E=0, f=1.0MHz$	C_{ob}	-	50	-	pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	P	Q	R
Range	82 - 180	120 - 270	180 - 390

Typical Characteristics

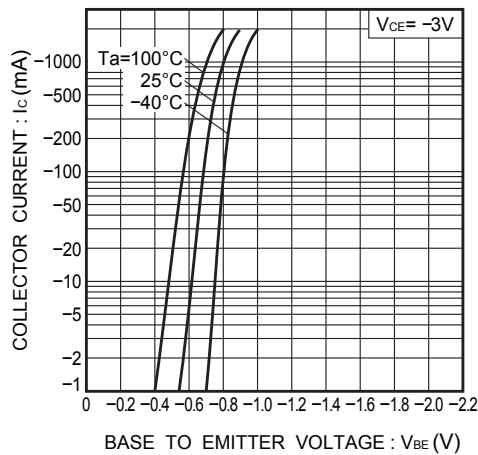


Fig.1 Grounded emitter propagation characteristics

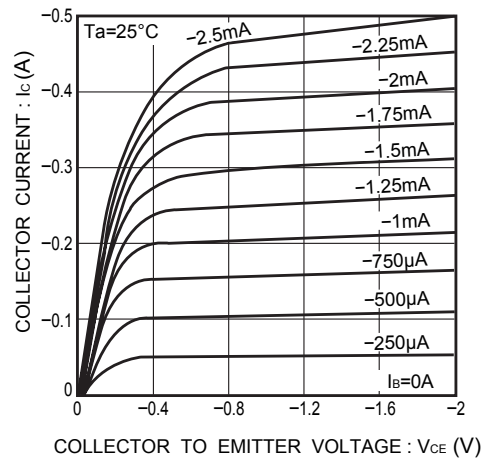


Fig.2 Grounded emitter output characteristics

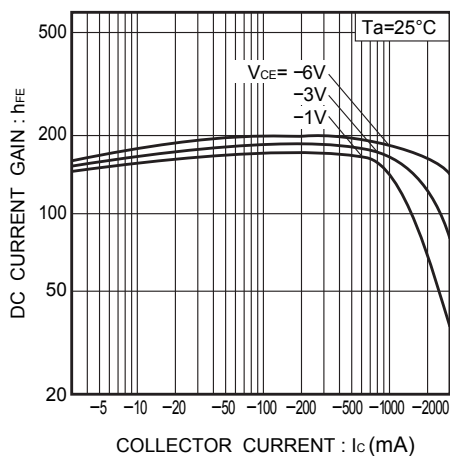


Fig.3 DC current gain vs. collector current (I)

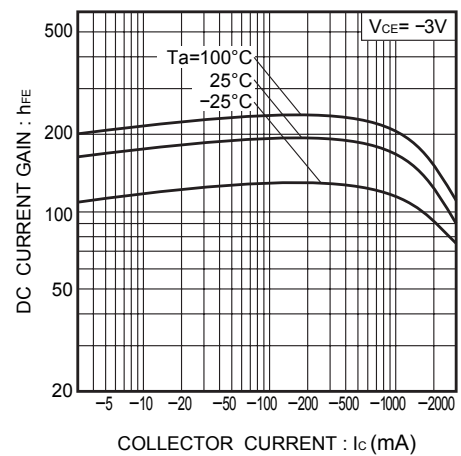


Fig.4 DC current gain vs. collector current (II)

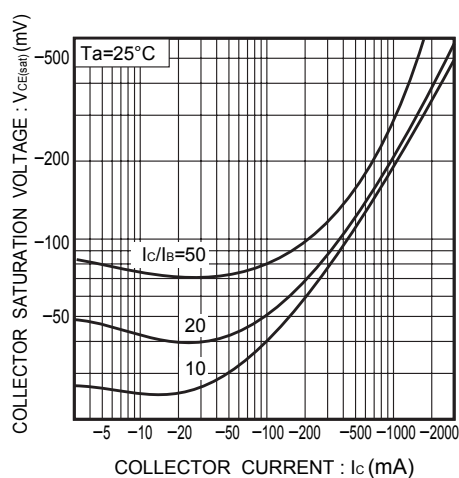


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

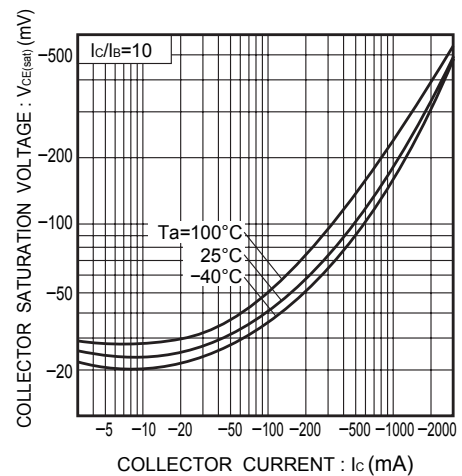


Fig.6 Collector-emitter saturation voltage vs. collector current (II)

Typical Characteristics

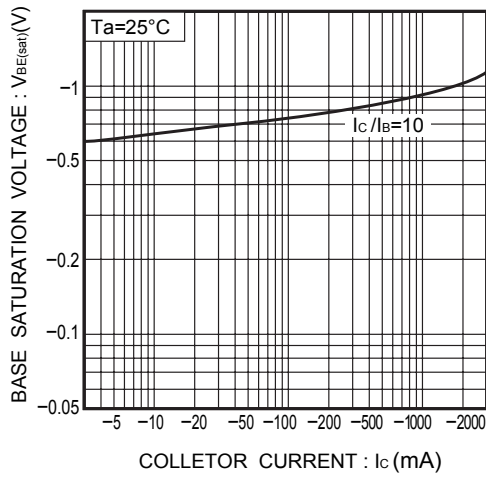


Fig.7 Base-emitter saturation voltage vs. collector current

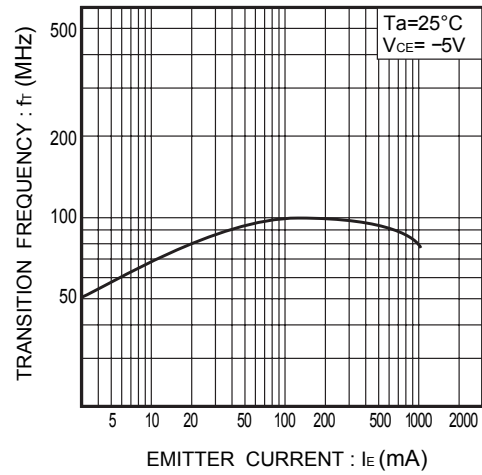


Fig.8 Gain bandwidth product vs. emitter current

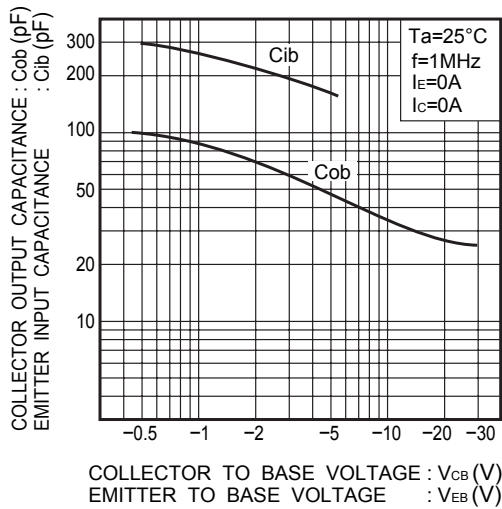


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

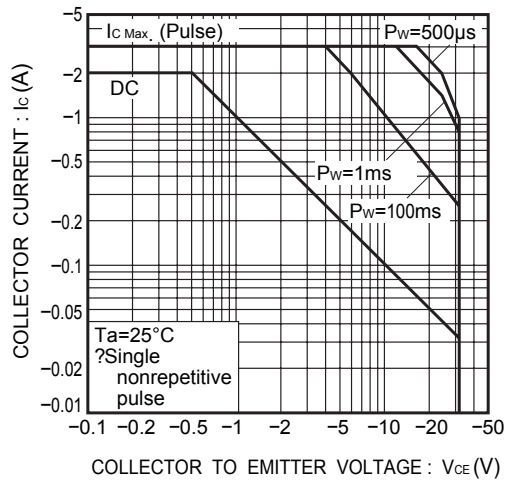
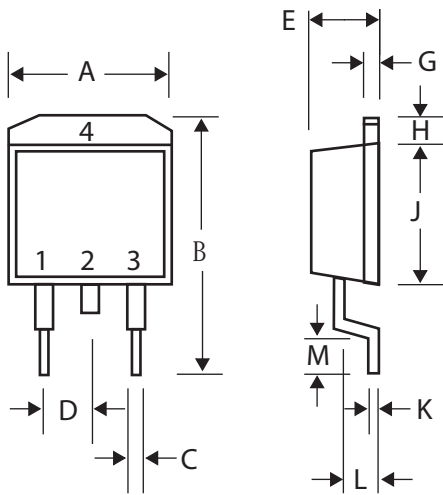


Fig.10 Safe operation area

TO-252 Outline Dimensions

unit:mm



TO-252		
Dim	Min	Max
A	6.40	6.80
B	9.00	10.00
C	0.50	0.80
D	-	2.30
E	2.20	2.50
G	0.45	0.55
H	1.00	1.60
J	5.40	5.80
K	0.30	0.64
L	0.70	1.70
M	0.90	1.50