

Features

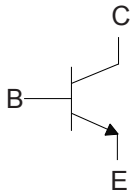
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 139°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	80	V
2SD667 2SD667A		100	
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	1	A
Power Dissipation	P_D	900	mW

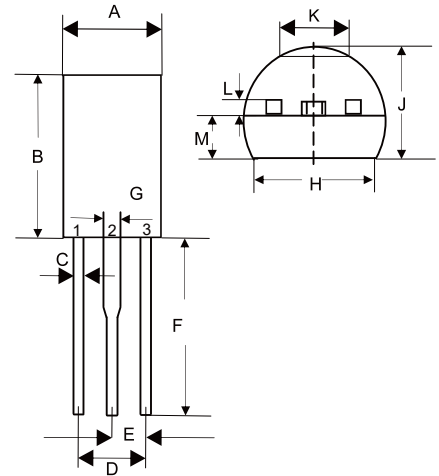
Internal Structure



- 1.EMITTER
- 2.COLLECTOR
- 3.BASE

**NPN
Plastic-Encapsulate
Transistor**

TO-92MOD



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.228	0.244	5.80	6.20	
B	0.331	0.346	8.40	8.80	
C	0.016	0.024	0.40	0.60	
D	0.114	0.122	2.90	3.10	Straight Lead
	0.173	0.220	4.40	5.60	Bent Lead
E	0.059		1.50		Straight Lead
	0.086	0.110	2.20	2.80	Bent Lead
F	0.543	0.559	13.80	14.20	
G	0.035	0.043	0.90	1.10	
H	0.157	-----	4.00	-----	
J	0.185	0.201	4.70	5.10	
K	-----	0.063	-----	1.60	
L	0.016	0.020	0.40	0.50	
M	0.068	0.080	1.73	2.03	

Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	V _{(BR)CBO}	120			V	I _C =10μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	80			V	I _C =1mA, I _B =0
		100				
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	5			V	I _E =10μA, I _C =0
Collector-Base Cutoff Current	I _{CBO}			10	μA	V _{CB} =100V, I _E =0
Emitter-Base Cutoff Current	I _{EBO}			10	μA	V _{EB} =4V, I _C =0
DC Current Gain	h _{FE(1)}	60		320		V _{CE} =5V, I _C =150mA
	h _{FE(2)}	30				V _{CE} =5V, I _C =-500mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}			1.0	V	I _C =500mA, I _B =50mA
Base-Emitter Voltage	V _{BE}			1.5	V	V _{CE} =5V, I _C =150mA
Transition Frequency	f _T		140		MHz	V _{CE} =5V, I _C =150mA
Collector-Base Capacitance	C _{cb}		12		pF	V _{CB} =10V, I _E =0, f=1MHz

Classification of h_{FE}

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

Curve Characteristics

Fig. 1 - Static Characteristics

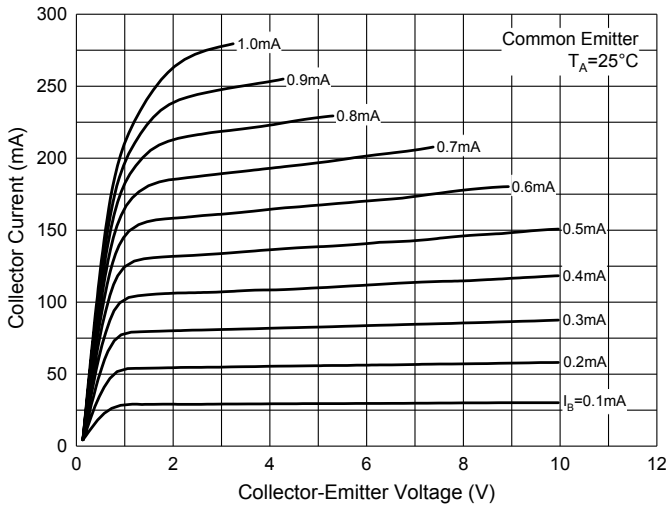


Fig. 2 - DC Current Gain Characteristics

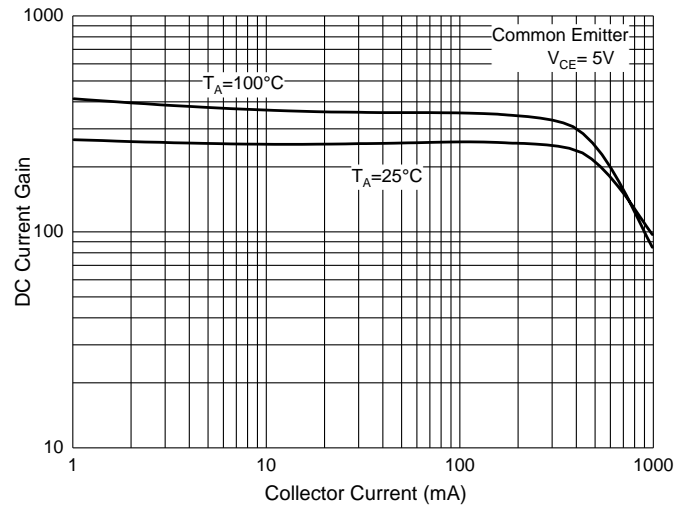


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

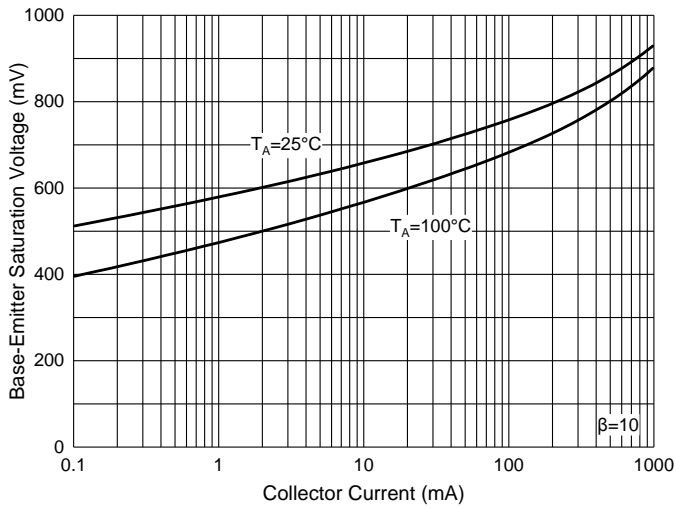


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

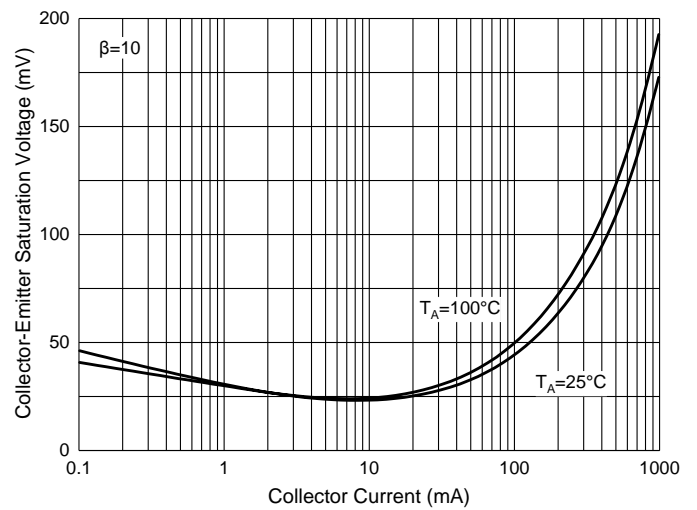


Fig. 5 - Base-Emitter Voltage Characteristics

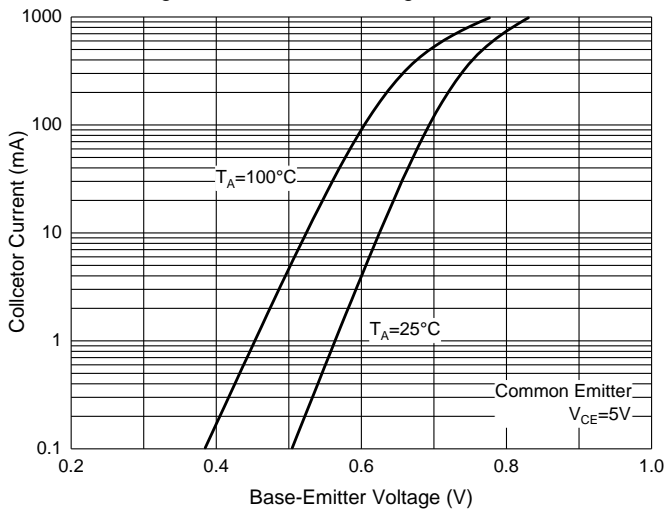
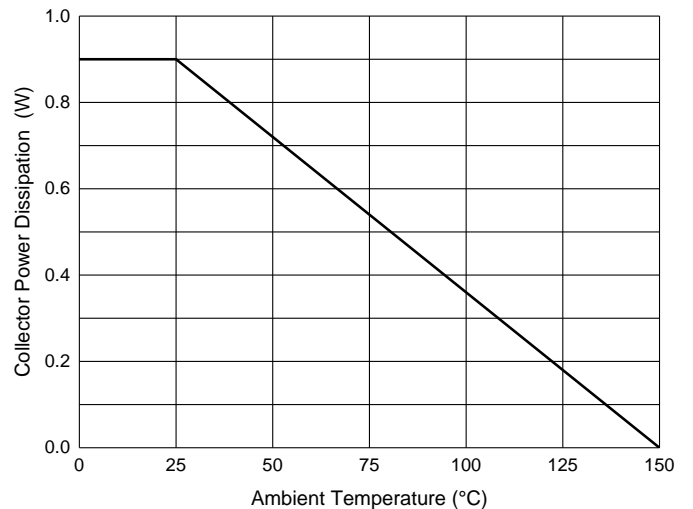


Fig. 6 - Collector Power Derating Curve



Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 50Kpcs/Carton

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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