

Features

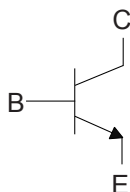
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

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: 200°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	BC337	50	V
	BC338	30	
Collector-Emitter Voltage	BC337	45	V
	BC338	25	
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	800	mA
Power Dissipation	P_D	625	mW

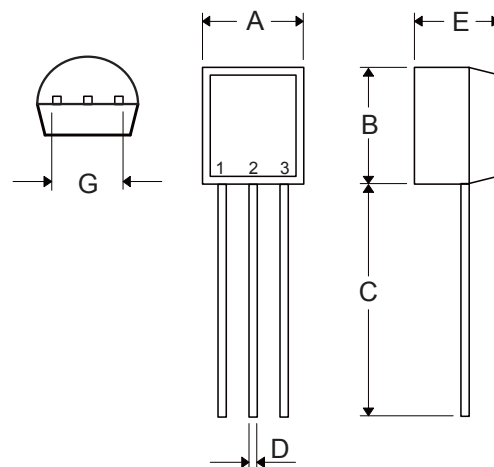
Internal Structure



1.COLLECTOR
2.BASE
3.EMITTER

NPN Plastic-Encapsulate Transistors

TO-92



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.169	0.185	4.30	4.70	
C	0.500	-----	12.70	-----	
D	0.015	0.022	0.38	0.55	
E	0.130	0.146	3.30	3.70	
G	0.095	0.105	2.42	2.67	Straight Lead
	0.173	0.220	4.40	5.60	Bent

Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter		Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	BC337	V _{(BR)CBO}	50			V	I _C =100μA, I _E =0
	BC338		30				
Collector-Emitter Breakdown Voltage	BC337	V _{(BR)CEO}	45			V	I _C =10mA, I _B =0
	BC338		25				
Emitter-Base Breakdown Voltage		V _{(BR)EBO}	5			V	I _E =10μA, I _C =0
Collector Cutoff Current	BC337	I _{CBO}			0.1	μA	V _{CB} =45V, I _E =0
	BC338				0.1		V _{CB} =25V, I _E =0
Collector Cutoff Current	BC337	I _{CEO}			0.2	μA	V _{CE} =40V, I _B =0
	BC338				0.2		V _{CE} =20V, I _B =0
Emitter Cutoff Current		I _{EBO}			0.1	μA	V _{EB} =4V, I _C =0
DC Current Gain	h _{FE(1)}		100		630		V _{CE} =1V, I _C =100mA
	h _{FE(2)}		60				V _{CE} =1V, I _C =300mA
Collector-Emitter Saturation Voltage		V _{CE(sat)}			0.7	V	I _C =500mA, I _B =50mA
Base-Emitter Saturation Voltage		V _{BE(sat)}			1.2	V	I _C =500mA, I _B =50mA
Transition Frequency		f _T	210			MHz	V _{CE} =5V, I _C =10mA, f=100MHz
Output Capacitance		C _{ob}		15		pF	V _{CB} =10V, I _E =0, f=1MHz

Classification of h_{FE(1)}

Rank	16	25	40
Range	100-250	160-400	250-600

Curve Characteristics

Fig. 1 - Static Characteristics

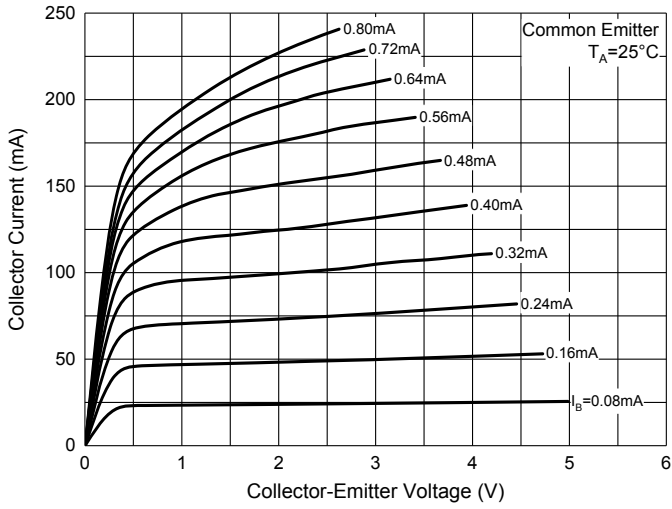


Fig. 2 - DC Current Gain Characteristics

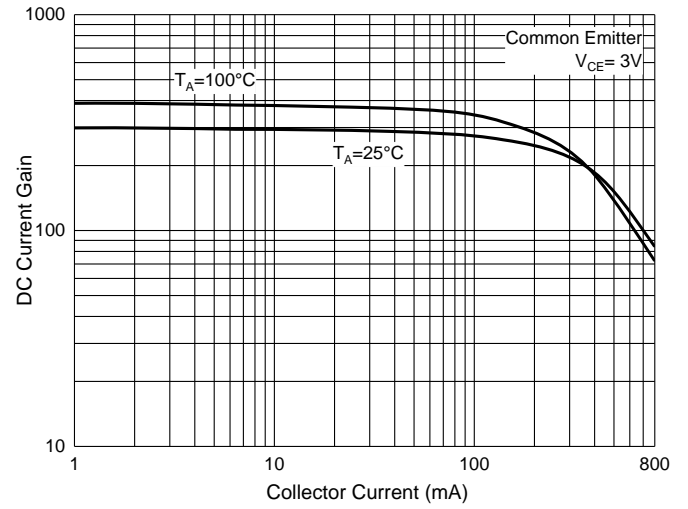


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

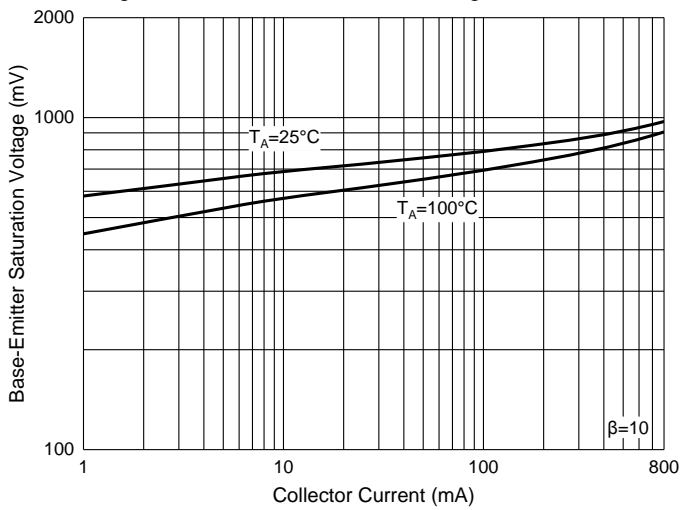


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

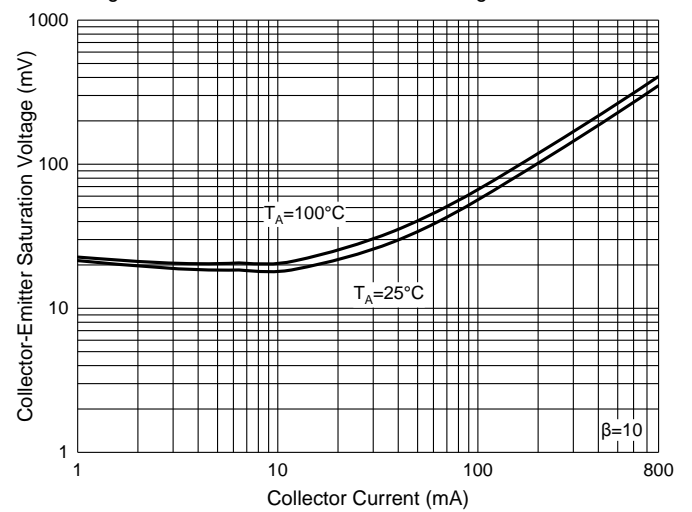


Fig. 5 - Transition frequency Characteristics

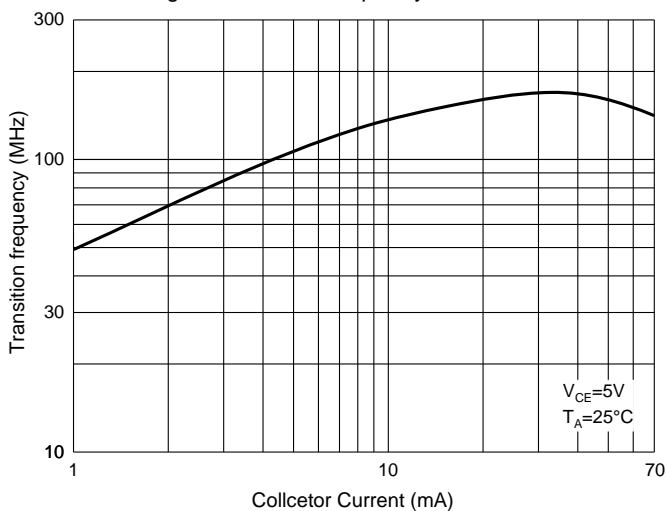
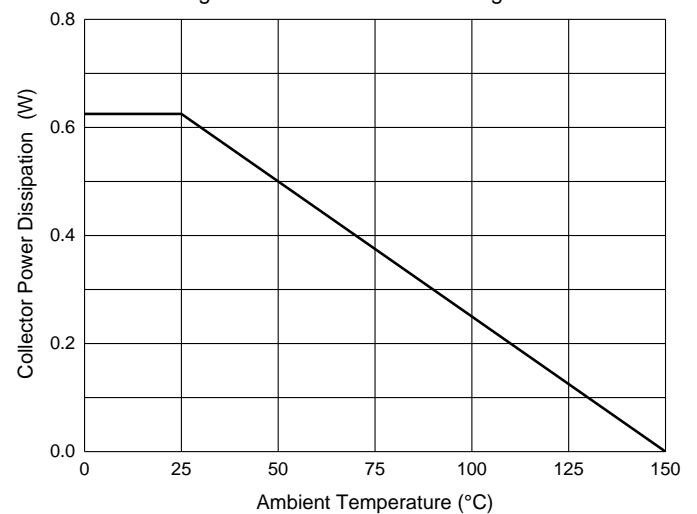


Fig. 6 - Collector Power Derating Curve



Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 1k/Bag, 100K/Ctn;

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

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