

Features

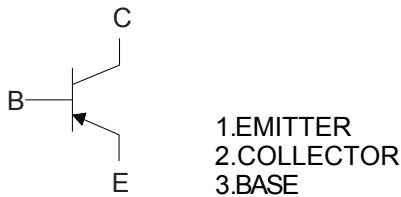
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

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

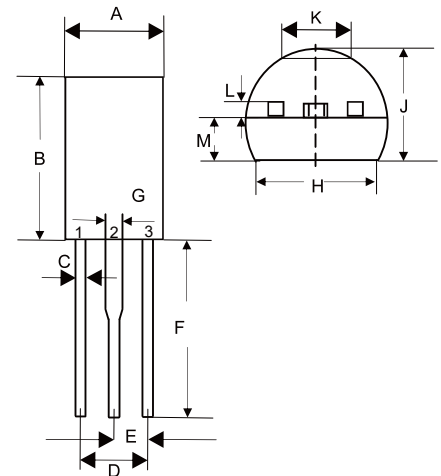
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-160	V
Emitter-Base Voltage	V_{EBO}	-6	V
Continuous Collector Current	I_C	-1	A
Power Dissipation	P_D	900	mW

Internal Structure



**PNP
Epitaxial Silicon
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 @ $T_A=25^\circ\text{C}$ Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-160			V	$I_C=-100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-160			V	$I_C=-1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6			V	$I_E=-10\mu\text{A}, I_C=0$
Collector-Base Cutoff Current	I_{CBO}			-1	μA	$V_{CB}=-150\text{V}, I_E=0$
Emitter-Base Cutoff Current	I_{EBO}			-1	μA	$V_{EB}=-6\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}$	60		300		$V_{CE}=-5\text{V}, I_C=-200\text{mA}$
	$h_{FE(2)}$	40				$V_{CE}=-5\text{V}, I_C=-50\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-1.5	V	$I_C=-500\text{mA}, I_B=-50\text{mA}$
Base-Emitter Voltage	V_{BE}			-0.75	V	$V_{CE}=-5\text{V}, I_C=-5\text{mA}$
Transition Frequency	f_T	15			MHz	$V_{CE}=-5\text{V}, I_C=-200\text{mA}$

Classification of h_{FE}

Rank	R	O	Y
Range	60-120	120-200	200-300

Curve Characteristics

Fig. 1 - Static Characteristics

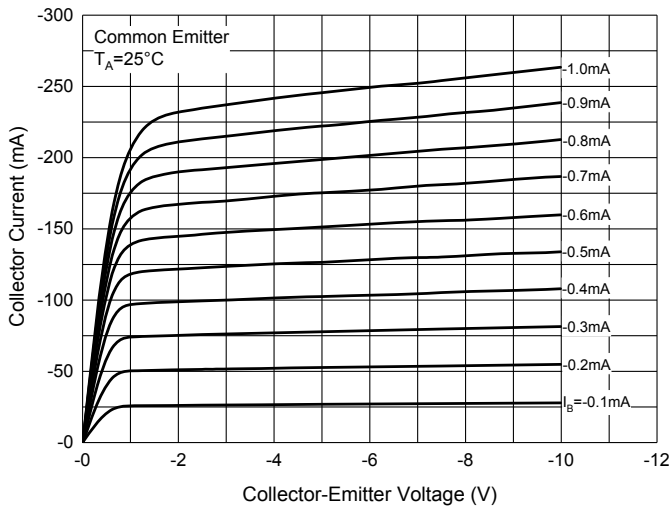


Fig. 2 - DC Current Gain Characteristics

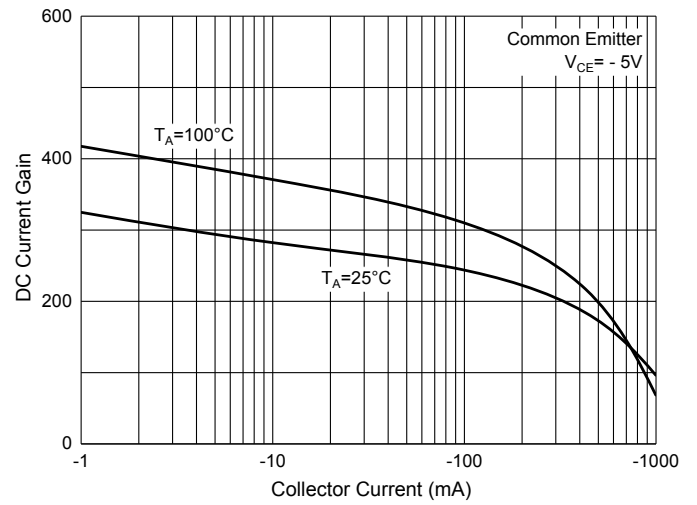


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

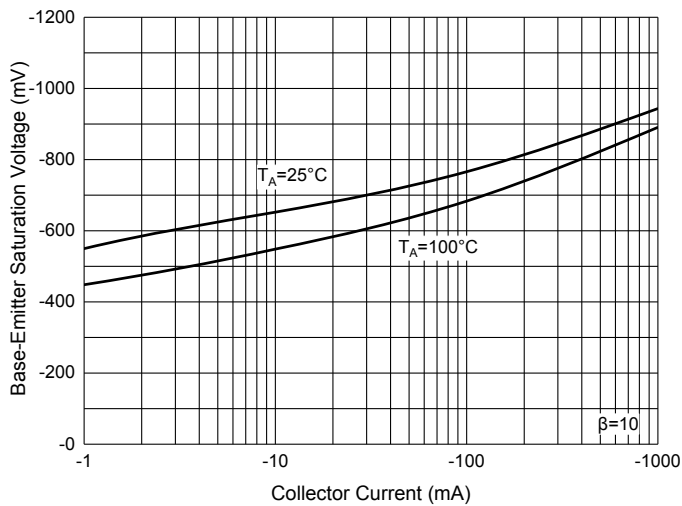


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

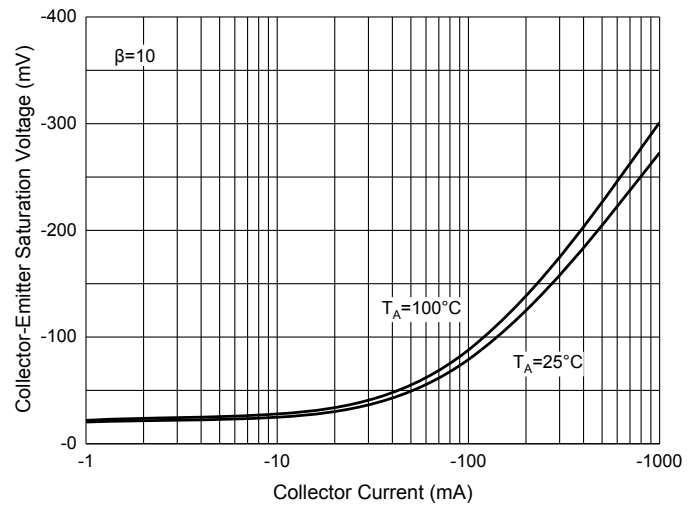


Fig. 5 - Base-Emitter Voltage Characteristics

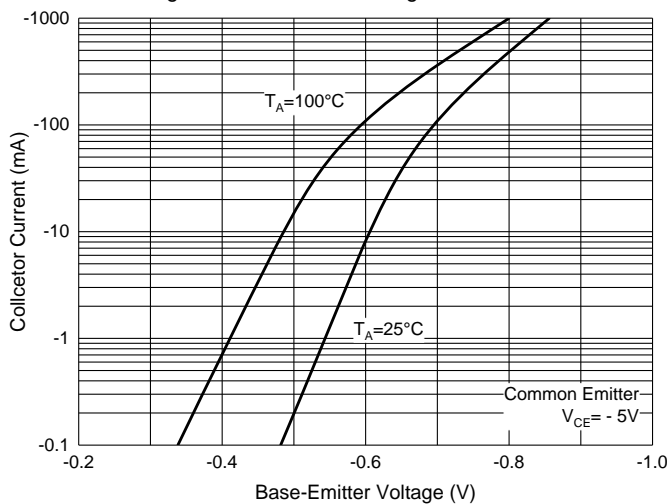
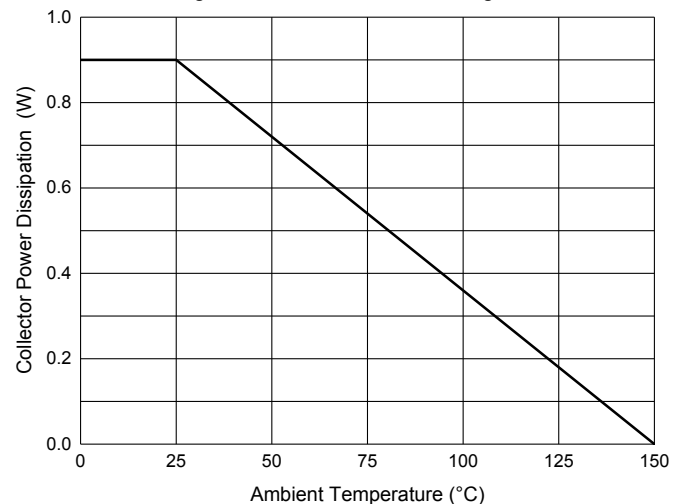


Fig. 6 - Collector Power Derating Curve



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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