

Features

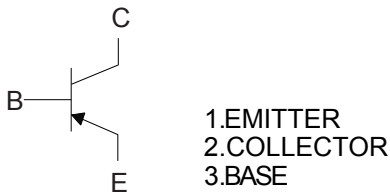
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

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: 312°C/W Junction to Ambient

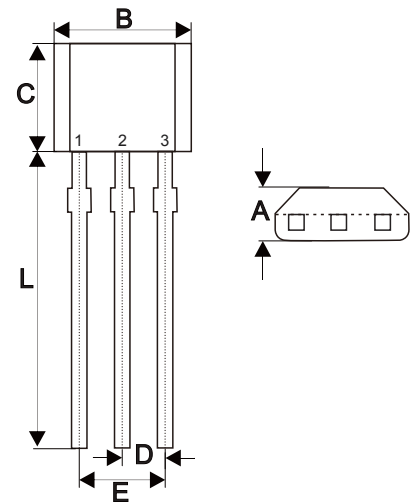
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-20	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-2	A
Power Dissipation	P_D	0.4	W

Internal Structure



**PNP
Plastic-Encapsulate
Transistors**

TO-92S



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.056	0.064	1.42	1.62	
B	0.154	0.161	3.90	4.10	
C	0.120	0.128	3.05	3.25	
D	0.050		1.27		Straight Lead
	0.086	0.110	2.20	2.80	Bent Lead
E	0.096	0.104	2.44	2.64	Straight Lead
	0.173	0.220	4.40	5.60	Bent Lead
L	0.594	0.610	15.10	15.50	

Electrical Characteristics @ $T_A=25^\circ\text{C}$ Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-20			V	$I_C=-50\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-20			V	$I_C=-1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6			V	$I_E=-50\mu\text{A}, I_C=0$
Collector-Base Cutoff Current	I_{CBO}			-0.1	μA	$V_{CB}=-20\text{V}, I_E=0$
Emitter-Base Cutoff Current	I_{EBO}			-0.1	μA	$V_{EB}=-5\text{V}, I_C=0$
DC Current Gain	h_{FE}	120		390		$V_{CE}=-2\text{V}, I_C=-0.1\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.8	V	$I_C=-2\text{A}, I_B=-0.1\text{A}$
Transition Frequency	f_T	200			MHZ	$V_{CE}=-2\text{V}, I_C=-0.5\text{A}, f=100\text{MHz}$

Classification of h_{FE}

Rank	Q	R
Range	120-170	180-390
Marking	1815Q	1815R

Curve Characteristics

Fig. 1 - Static Characteristics

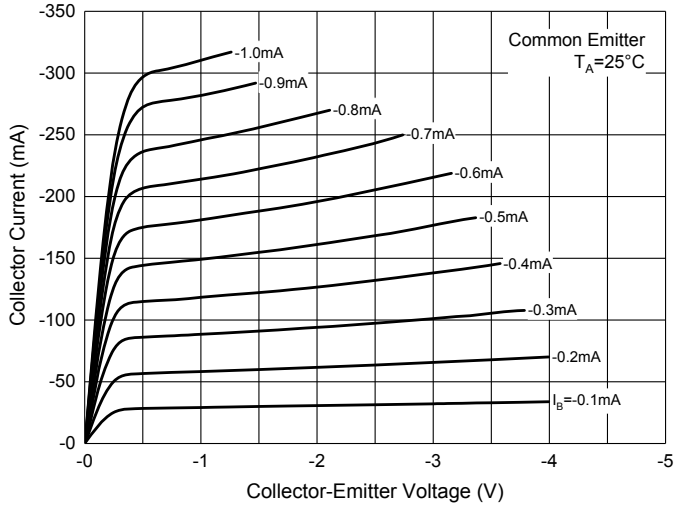


Fig. 2 - DC Current Gain Characteristics

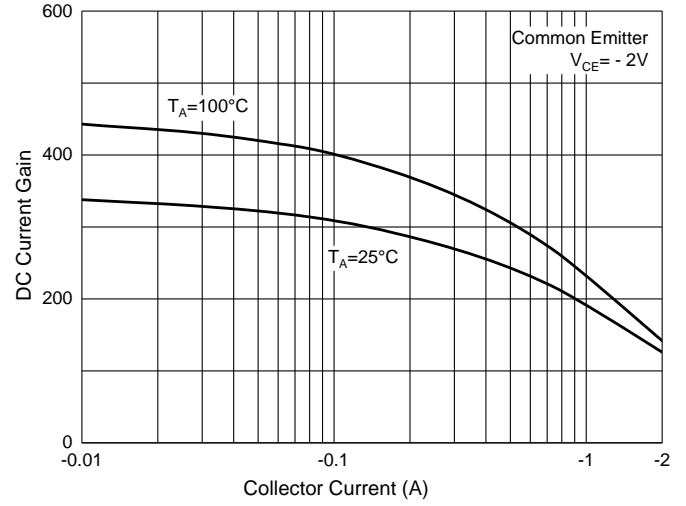


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

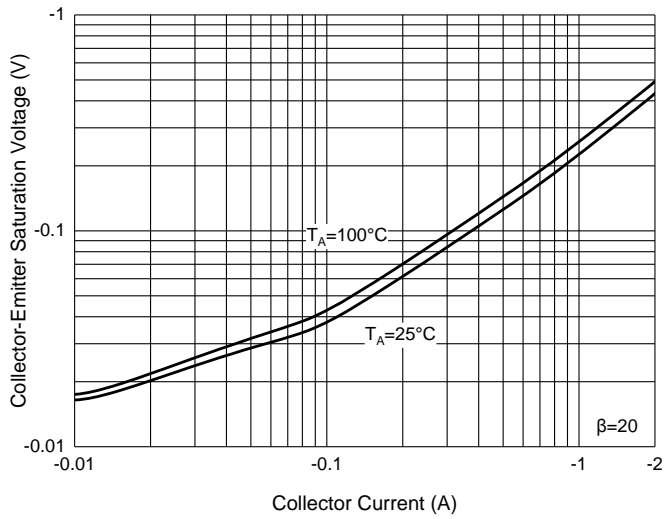


Fig. 4 - Transition frequency Characteristics

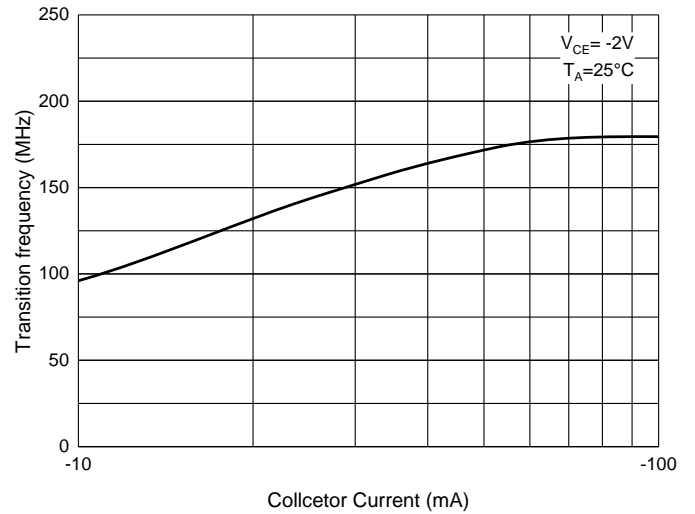
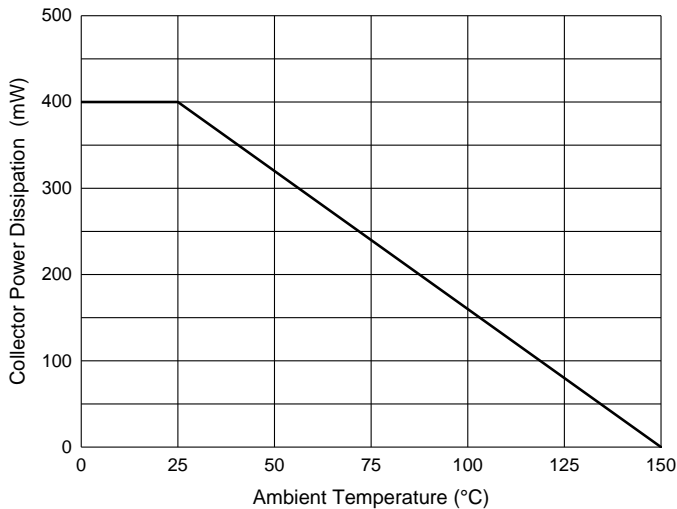


Fig. 5 - Collector Power Derating Curve



Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 30Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

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

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