Shantou Huashan Electronic Devices Co.,Ltd.

PNP DARLINGTON TRANSISTOR

HP147TSW

APPLICATIONS

High DC Current Gain

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

T_{stg}——Storage Temperature…… -55~150℃

T_j——Junction Temperature…… 150℃

P_C——Collector Dissipation (T_c=25℃) …… 70W

V_{CBO}——Collector-Base Voltage…… -100V

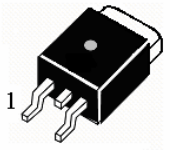
V_{CEO}——Collector-Emitter Voltage…… -100V

V_{EBO}——Emitter-Base Voltage…… -5V

I_C——Collector Current (DC) …… -8A

I_B——Base Current……-0.5A

TO-263



1—Base，B
2—Collector，C
3—Emitter, E

ELECTRICAL CHARACTERISTICS (T_a=25℃)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
$BV_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	-100			V	I_C=-30mA, I_B=0
I_{CEO}	Collector Cutoff Current			-2	mA	V_{CE}=-50V, I_B=0
I_{CBO}	Collector Cutoff Current			-1	mA	V_{CB}=-100V, I_E=0
I_{EBO}	Emitter-Base Cutoff Current			-2	mA	V_{EB}=-5V, I_C=0
H_{FE} (1)	DC Current Gain	1000				V_{CE}=-4V, I_C=-0.5A
H_{FE} (2)		1000				V_{CE}=-4V, I_C=-3A
$V_{CE(sat1)}$	Collector- Emitter Saturation Voltage			-2	V	I_C=-5A, I_B=-10mA
$V_{CE(sat2)}$				-3	V	I_C=-10A, I_B=-40mA
$V_{BE(sat)}$	Base- Emitter Saturation Voltage			-3.5	V	I_C=-10A, I_B=-40mA
$V_{BE(on)}$	Base- Emitter On Vo ltage			-3	V	V_{CE}=-4V,I_C=-10A,
t_D	Deiay time		0.15		uS	Vcc=-30V,Ic=-5A I_{B1}=-20mA I_{B2}=20mA
t_R	Rise Time		0.55		uS	
t_S	Storage Time		2.5		uS	
t_F	Fall Time		2.5		uS	

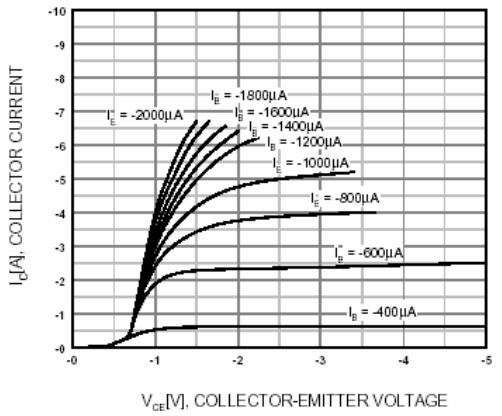


Figure 1. Static Characteristic

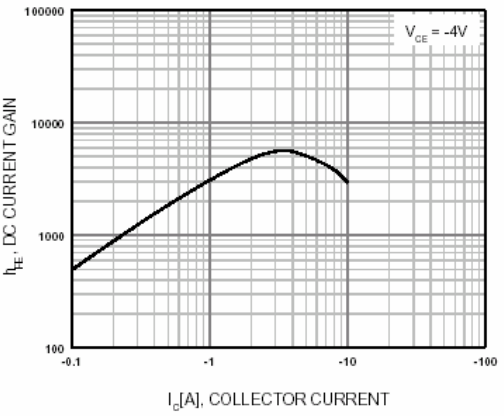


Figure 2. DC current Gain

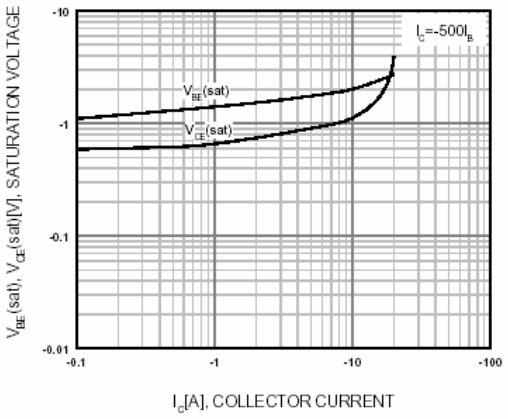


Figure 3. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

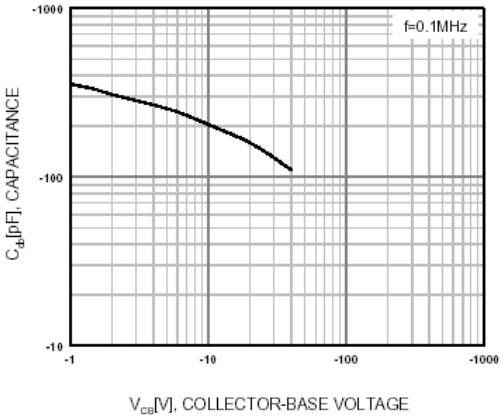


Figure 4. Collector Output Capacitance

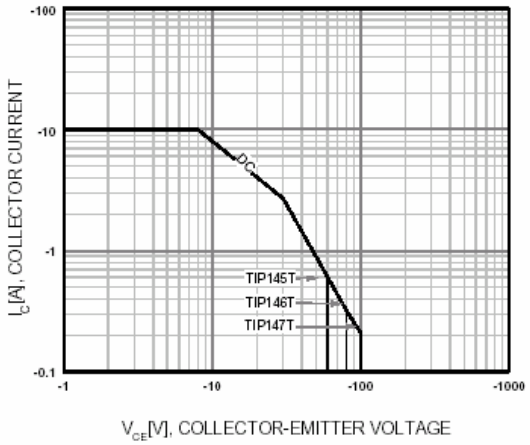


Figure 5. Safe Operating Area

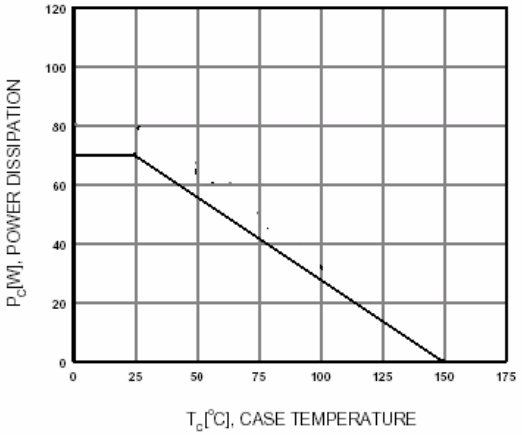


Figure 6. Power Derating