

DESCRIPTION

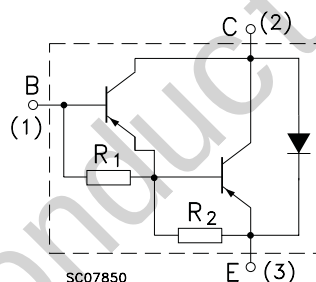
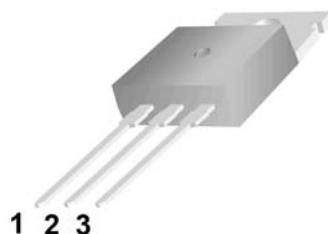
- With TO-220C package
- DARLINGTON
- High DC current gain
- Low collector saturation voltage
- Complement to type TIP120/121/122

APPLICATIONS

- Designed for general-purpose amplifier and low-speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter



Absolute maximum ratings(Tc=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	TIP125	-60	V
		TIP126	-80	
		TIP127	-100	
V _{CEO}	Collector-emitter voltage	TIP125	-60	V
		TIP126	-80	
		TIP127	-100	
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current-DC		-5	A
I _{CM}	Collector current-Pulse		-8	A
I _B	Base current-DC		-120	mA
P _C	Collector power dissipation	T _C =25°C	65	W
		T _a =25°C	2	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

CHARACTERISTICS
 $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	TIP125	$I_C=-0.1A, I_B=0$	-60			V
		TIP126		-80			
		TIP127		-100			
$V_{CEsat-1}$	Collector-emitter saturation voltage		$I_C=-3A, I_B=-12mA$			-2.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		$I_C=-5A, I_B=-20mA$			-4.0	V
V_{BE}	Base-emitter on voltage		$I_C=-3.0A; V_{CE}=-3V$			-2.5	V
I_{CBO}	Collector cut-off current	TIP125	$V_{CB}=-60V, I_E=0$			-0.2	mA
		TIP126	$V_{CB}=-80V, I_E=0$				
		TIP127	$V_{CB}=-100V, I_E=0$				
I_{CEO}	Collector cut-off current	TIP125	$V_{CE}=-30V, I_B=0$			-0.5	mA
		TIP126	$V_{CE}=-40V, I_B=0$				
		TIP127	$V_{CE}=-50V, I_B=0$				
I_{EBO}	Emitter cut-off current		$V_{EB}=-5V; I_C=0$			-2	mA
h_{FE-1}	DC current gain		$I_C=-0.5A; V_{CE}=-3V$	1000			
h_{FE-2}	DC current gain		$I_C=-3.0A; V_{CE}=-3V$	1000			
C_{ob}	Output capacitance		$I_E=0; V_{CB}=-10V, f=0.1MHz$			300	pF

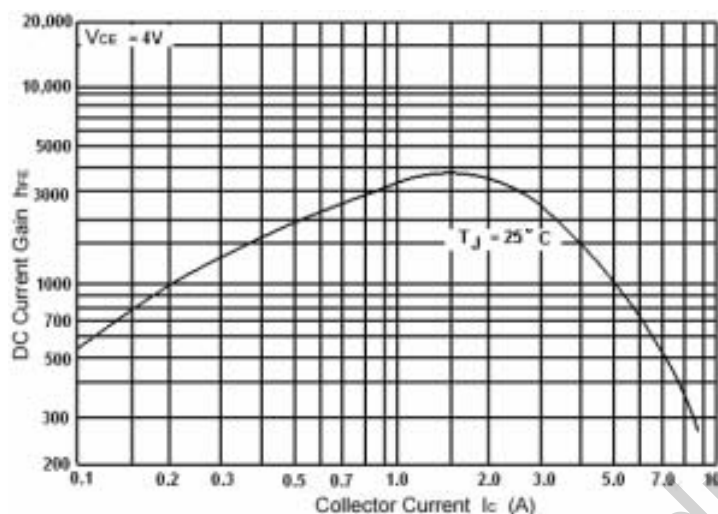


Fig.3 DC current Gain

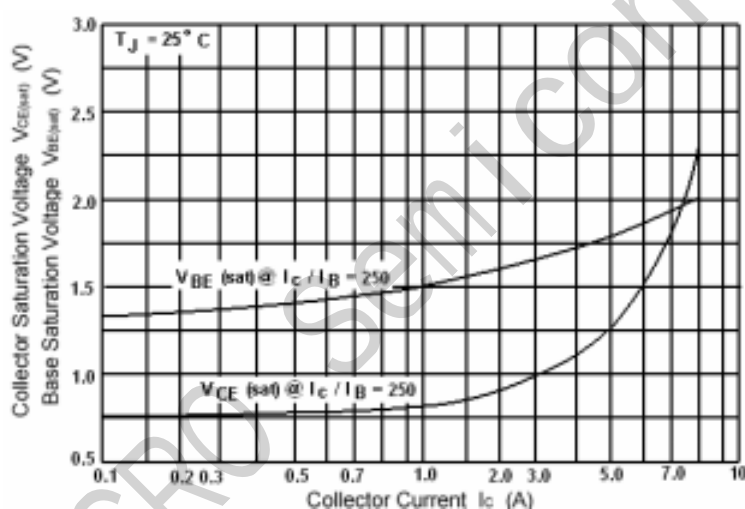
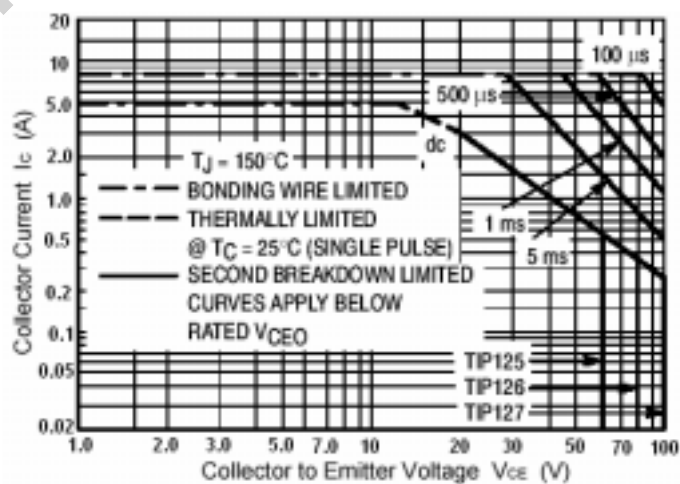
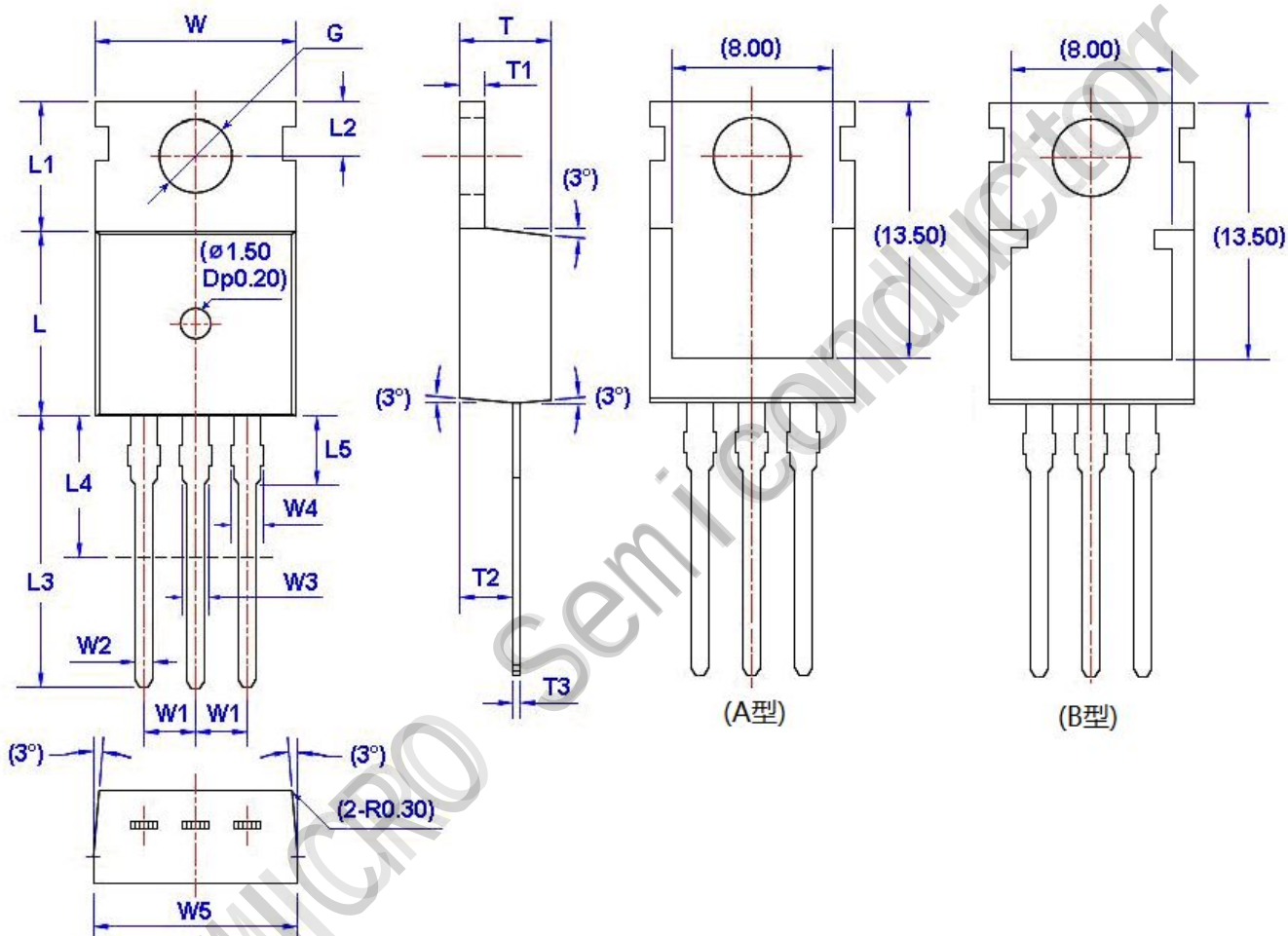

 Fig.4 Base-Emitter Saturation Voltage
 Collector-Emitter Saturation Voltage


Fig.5 Safe Operating Area

TO-220 Package Dimensions



Unit: mm

Symbol	Size		Symbol	Size		Symbol	Size		Symbol	Size	
	Min	Max		Min	Max		Min	Max		Min	Max
W	9.66	10.28	W5	9.80	10.20	L4**	6.20	6.60	T3	0.45	0.60
W1	2.54 (TYP)		L	9.00	9.40	L5	2.79	3.30	G(Φ)	3.50	3.70
W2	0.70	0.95	L1	6.40	6.80	T	4.30	4.70			
W3	1.17	1.37	L2	2.70	2.90	T1	1.15	1.40			
W4*	1.32	1.72	L3	12.70	14.27	T2	2.20	2.60			