

SavantIC Semiconductor

Product Specification

Silicon PNP Darlington Power Transistors

TIP135/136/137

DESCRIPTION

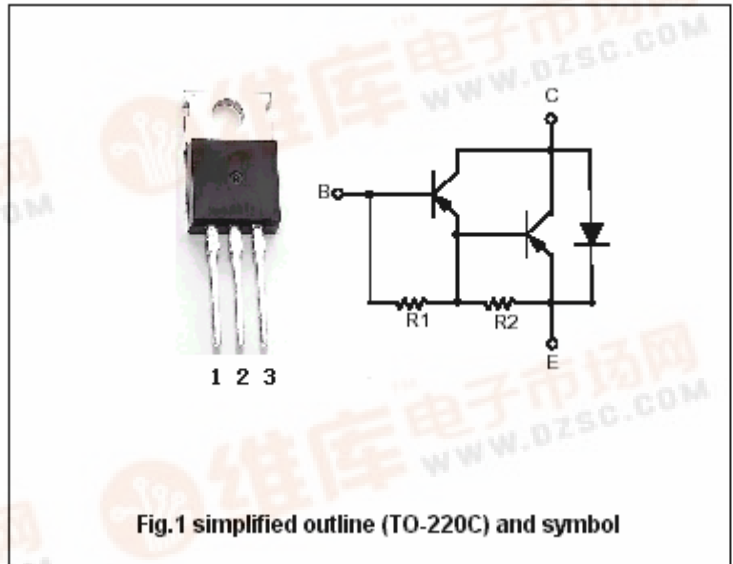
- With TO-220C package
- DARLINGTON
- Collector saturation voltage
- Complement to type TIP130/131/132

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($T_c=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	TIP135	Open emitter	-60	V
		TIP136		-80	
		TIP137		-100	
V_{CEO}	Collector-emitter voltage	TIP135	Open base	-60	V
		TIP136		-80	
		TIP137		-100	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current-DC			-8	A
I_{CM}	Collector current-peak			-12	A
I_B	Base current-DC			-0.3	A
P_C	Collector power dissipation		$T_c=25^\circ\text{C}$	70	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.785	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

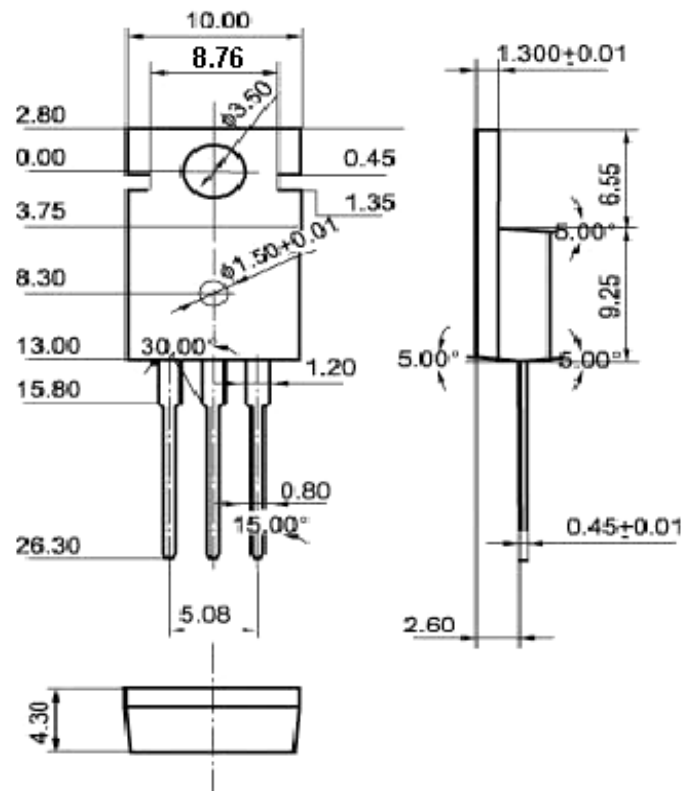
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	TIP135	I _C =-30mA, I _B =0	-60			V
		TIP136		-80			
		TIP137		-100			
V _{CE(sat)-1}	Collector-emitter saturation voltage		I _C =-4A, I _B =-16mA			-2.0	V
V _{CE(sat)-2}	Collector-emitter saturation voltage		I _C =-6A, I _B =-30mA			-3.0	V
V _{BE}	Base-emitter on voltage		I _C =-4A; V _{CE} =-4V			-2.5	V
I _{CBO}	Collector cut-off current	TIP135	V _{CB} =-60V, I _E =0			-0.2	mA
		TIP136	V _{CB} =-80V, I _E =0				
		TIP137	V _{CB} =-100V, I _E =0				
I _{CEO}	Collector cut-off current	TIP135	V _{CE} =-30V, I _B =0			-0.5	mA
		TIP136	V _{CE} =-40V, I _B =0				
		TIP137	V _{CE} =-50V, I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-5.0	mA
h _{FE-1}	DC current gain		I _C =-1A; V _{CE} =-4V	500			
h _{FE-2}	DC current gain		I _C =-4A; V _{CE} =-4V	1000		15000	
C _{OB}	Output capacitance		I _E =0; V _{CB} =-10V, f=0.1MHz			250	pF

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PACKAGE OUTLINE

Fig.2 Outline dimensions(unindicated tolerance: ± 0.1 mm)