

Silicon NPN Darlington Power Transistors

2SC3146

DESCRIPTION

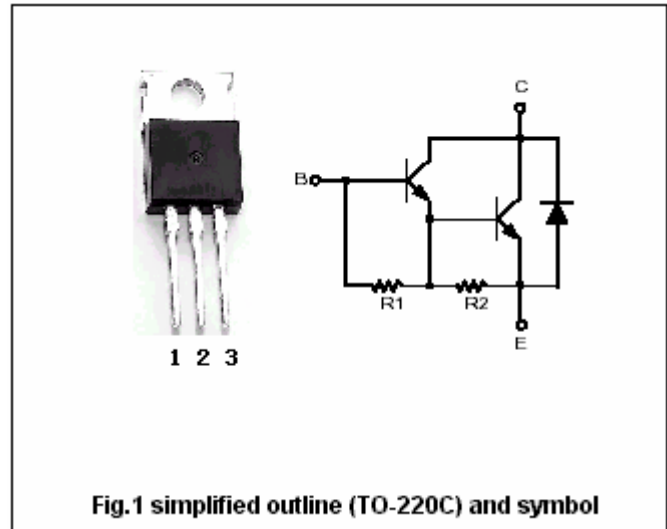
- With TO-220C package
- High switching speed
- High DC current gain
- Wide area of safe operation
- Complement to type 2SA1260

APPLICATIONS

- 60V/7A for High-Speed Drivers Applications

PINNING

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

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	70	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current-DC		7	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	40	W
		$T_a=25^\circ\text{C}$	1.75	
T_j	Junction temperature		125	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~125	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA ; R _{BE} =∞	60			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =5mA ; I _E =0	70			V
V _{CE(sat)-1}	Collector-emitter saturation voltage	I _C =3.5A , I _B =7mA			1.5	V
V _{CE(sat)-2}	Collector-emitter saturation voltage	I _C =3.5A , I _B =7mA			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =40V, I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			3.0	mA
h _{FE}	DC current gain	I _C =3.5A ; V _{CE} =2V	2000			

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PACKAGE OUTLINE

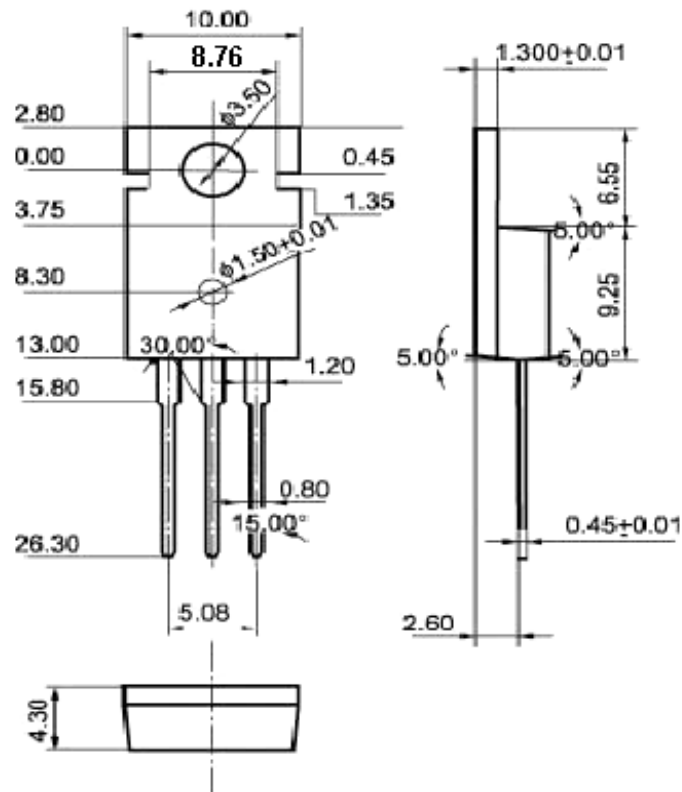


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)