

Silicon NPN Power Transistors

2SC2654

DESCRIPTION

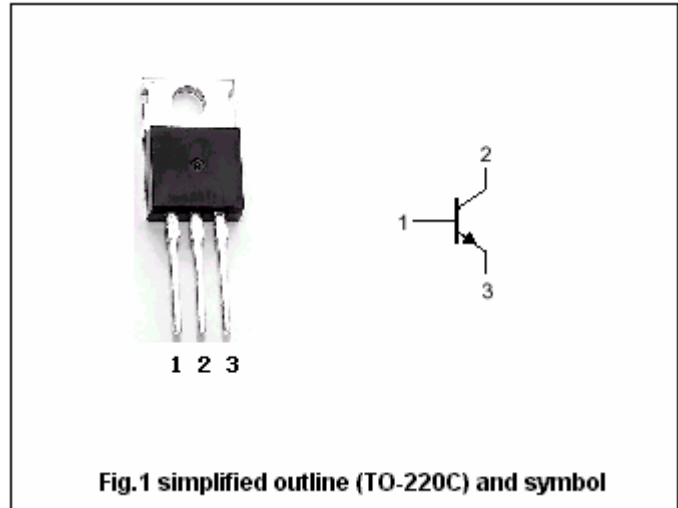
- With TO-220 package
- Complement to type 2SA1129
- Low collector saturation voltage

APPLICATIONS

- For low-frequency power amplifiers and mid-speed switching 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	100	V
V_{CEO}	Collector-emitter voltage	Open base	40	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current-peak		15	A
I_B	Base current (DC)		3.5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	40	W
		$T_a=25^\circ\text{C}$	1.5	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)-1}	Collector-emitter saturation voltage	I _C =3A ; I _B =0.1A			0.3	V
V _{CE(sat)-2}	Collector-emitter saturation voltage	I _C =5A ; I _B =0.5A			0.6	V
V _{BE(sat)-1}	Base-emitter saturation voltage	I _C =3A ; I _B =0.1A			1.5	V
V _{BE(sat)-2}	Base-emitter saturation voltage	I _C =5A ; I _B =0.5A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =40V; I _E =0			10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μA
h _{FE-1}	DC current gain	I _C =3A ; V _{CE} =1V	40		320	
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =1V	20			

Switching times

t _{on}	Turn-on time	I _C =5.0A I _{B1} =0.5 A , I _{B2} =-0.5A V _{CC} ≈20V, R _L =4.0Ω			1.0	μs
t _s	Storage time				2.5	μs
t _f	Fall time				1.0	μs

◆ h_{FE-1} Classifications

M	L	K	J
40-80	60-120	100-200	160-320

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PACKAGE OUTLINE

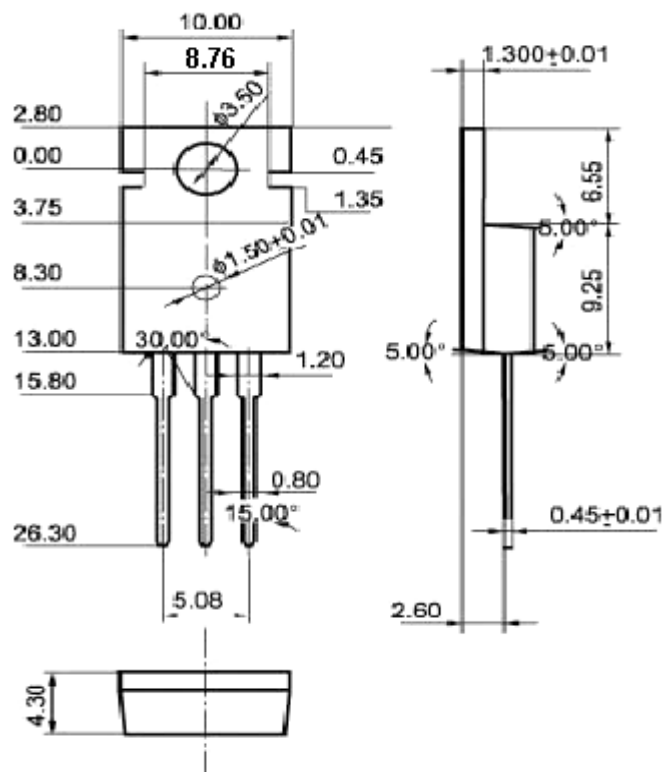


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)