

Silicon NPN Power Transistors

2SC2075

DESCRIPTION

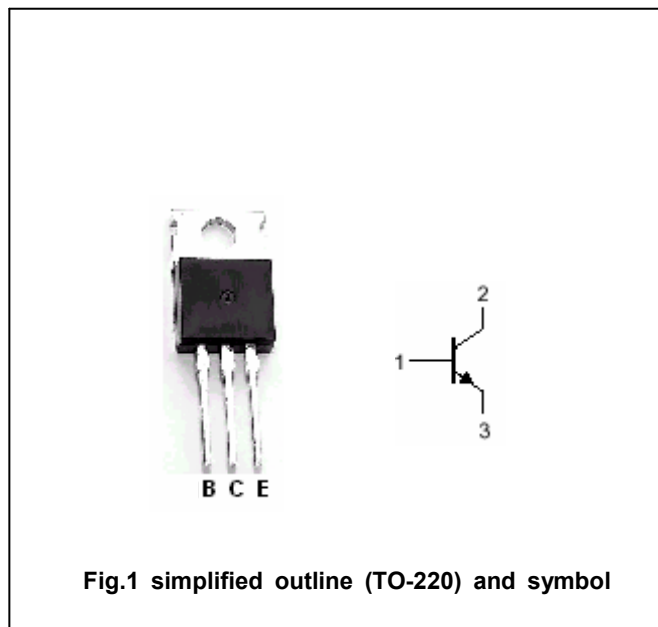
- With TO-220 package
- High transition frequency
- Wide area of safe operation

APPLICATIONS

- 27MHz power amplifier applications
- Recommended for output stage application of AM 4W transmitter

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	80	V
V_{CEO}	Collector-emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	4	V
I_C	Collector current		4	A
I_E	Emitter current		-4	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	10	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

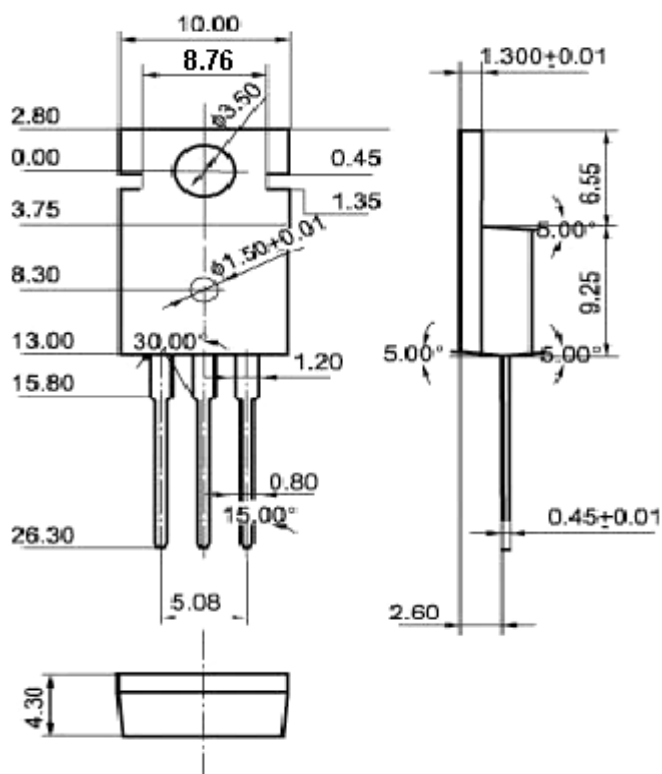
Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A$; $I_B=0.3A$			1.5	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA$; $I_B=0$	80			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1.0mA$; $I_C=0$	4			V
I_{CBO}	Collector cut-off current	$V_{CB}=30V$; $I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V$; $I_C=0$			10	μA
h_{FE-1}	DC current gain	$I_C=0.5A$; $V_{CE}=5V$	25			
h_{FE-2}	DC current gain	$I_C=3A$; $V_{CE}=2V$	15			
C_{OB}	Output capacitance	$I_E=0$; $V_{CB}=10V$; $f=1MHz$		40		pF
f_T	Transition frequency	$I_C=0.5A$; $V_{CE}=5V$		100		MHz

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PACKAGE OUTLINE

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