

Silicon NPN Power Transistors

2SD234

DESCRIPTION

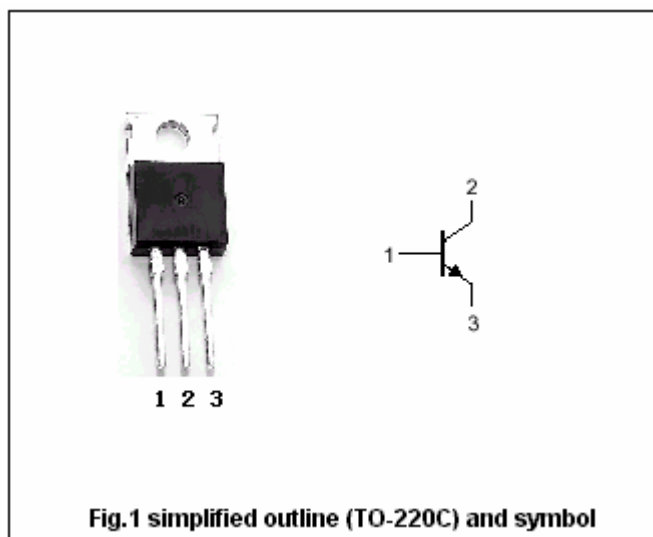
- With TO-220 package
- Complement to type 2SB434

APPLICATIONS

- For low frequency power amplifier and 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	60	V
V_{CEO}	Collector-emitter voltage	Open base	50	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		3	A
P_C	Collector power dissipation		1.5	W
		$T_C=25^\circ\text{C}$	25	
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
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=5mA, I_B=0$	50			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA, I_E=0$	60			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1mA, I_C=0$	6			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A; I_B=0.3A$			1.2	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=3A; I_B=0.3A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=40V; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V; I_C=0$			10	μA
h_{FE}	DC current gain	$I_C=0.5A; V_{CE}=1V$	40		240	
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10V, f=1MHz$		90		pF
f_T	Transition frequency	$I_C=0.5A; V_{CE}=10V$		3		MHz

◆ h_{FE} Classifications

R	O	Y
40-80	70-140	120-240

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PACKAGE OUTLINE

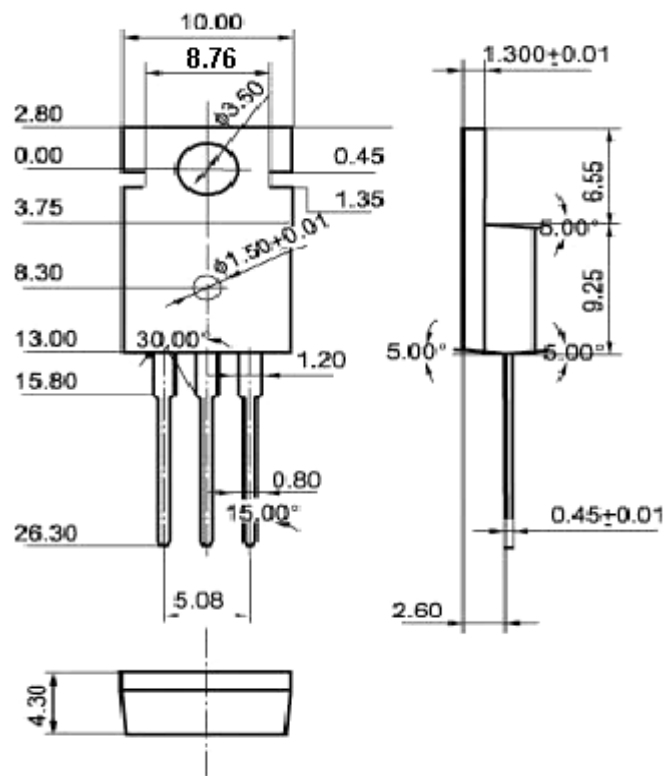


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)