

Silicon NPN Power Transistors

2SC2238 2SC2238A 2SC2238B

DESCRIPTION

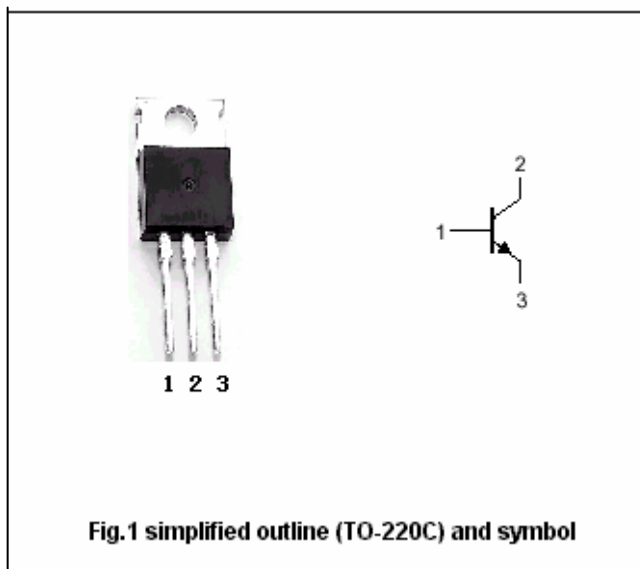
- With TO-220 package
- Complement to type 2SA968
- High breakdown votage

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC2238	Open emitter	160	V
		2SC2238A		180	
		2SC2238B		200	
V_{CEO}	Collector-emitter voltage	2SC2238	Open base	160	V
		2SC2238A		180	
		2SC2238B		200	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			1.5	A
I_E	Emitter current			-1.5	A
P_T	Total power dissipation		$T_C=25^{\circ}\text{C}$	25	W
T_j	Junction temperature			150	$^{\circ}\text{C}$
T_{stg}	Storage temperature			-55~150	$^{\circ}\text{C}$

Silicon NPN Power Transistors**2SC2238 2SC2238A 2SC2238B****CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SC2238	I _C =10mA; I _B =0	160			V
		2SC2238A		180			
		2SC2238B		200			
V _{(BR)EBO}	Emitter-base breakdown voltage		I _E =1mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage		I _C =500mA; I _B =50mA			1.5	V
V _{BE}	Base-emitter on voltage		I _C =500mA ; V _{CE} =5V			1.0	V
I _{CBO}	Collector cut-off current		V _{CB} =160V ; I _E =0			1.0	μA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1.0	μA
h _{FE}	DC current gain		I _C =100mA ; V _{CE} =5V	70		240	
C _{ob}	Output capacitance		I _E =0 ; V _{CB} =10V, f=1MHz		25		pF
f _T	Transition frequency		I _C =100mA ; V _{CE} =10V		100		MHz

◆ **h_{FE} Classifications**

O	Y
70-140	120-240

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PACKAGE OUTLINE

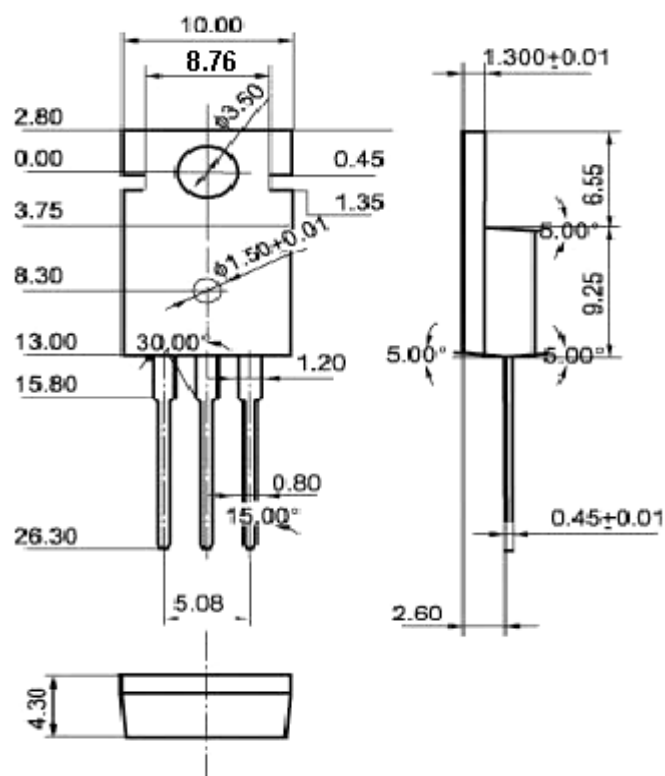


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)