

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

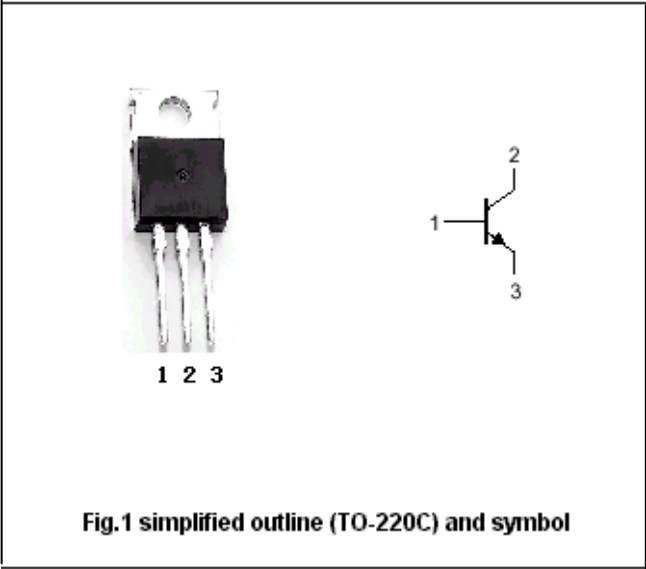


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SC2238	160	V
		2SC2238A	180	
		2SC2238B	200	
V _{CEO}	Collector-emitter voltage	2SC2238	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	25	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 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

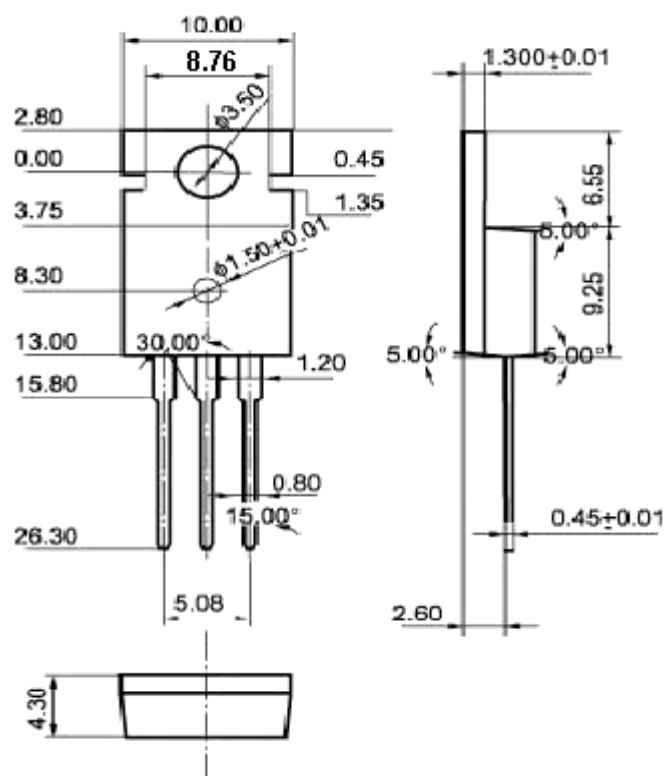


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)