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

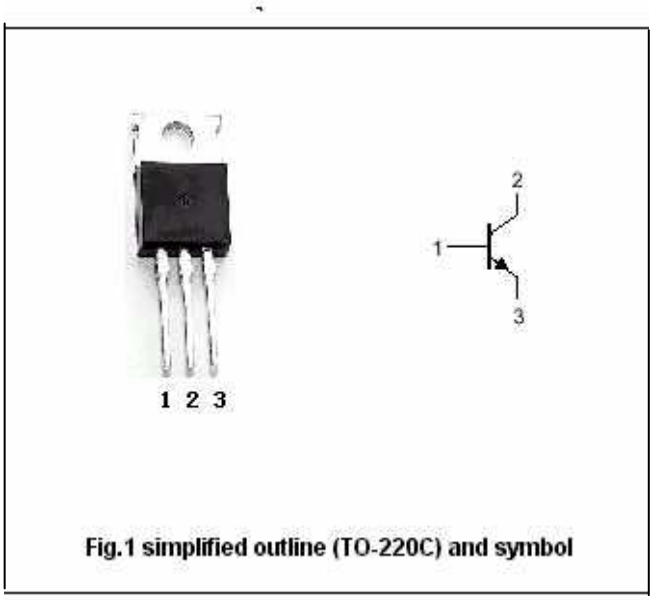

Fig.1 simplified outline (TO-220C) and symbol

PINNING

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

Absolute maximum ratings(Ta=25℃)

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℃	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=500A; 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

PACKAGE OUTLINE

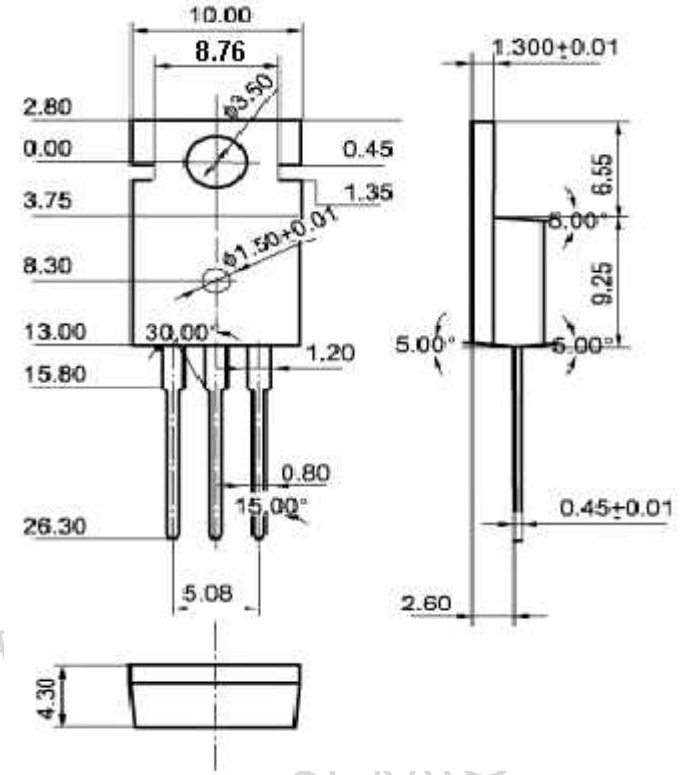

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)