

# 2SC2238

# 2SC2238A

# 2SC2238B

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

POWER AMPLIFIER APPLICATIONS.

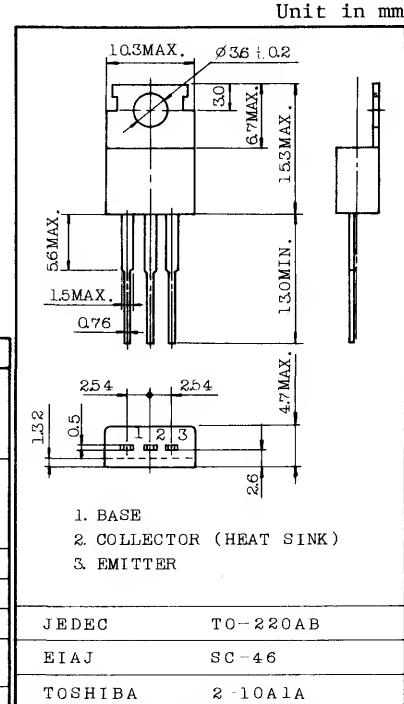
DRIVER STAGE AMPLIFIER APPLICATIONS.

#### FEATURES:

- High Transition Frequency :  $f_T=100\text{MHz}$  (Typ.)
- Complementary to 2SA968, 2SA968A, and 2SA968B.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	2SC2238	$V_{CBO}$	160	V
	2SC2238A		180	
	2SC2238B		200	
Collector-Emitter Voltage	2SC2238	$V_{CEO}$	160	V
	2SC2238A		180	
	2SC2238B		200	
Emitter-Base Voltage	$V_{EB0}$	$V_{EB0}$	5	V
Collector Current	$I_C$	$I_C$	1.5	A
Emitter Current	$I_E$	$I_E$	-1.5	A
Collector Power Dissipation (Tc=25°C)	$P_C$	$P_C$	25	W
Junction Temperature	$T_j$	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	$T_{stg}$	-55~150	°C



Mounting Kit No. AC75  
Weight : 1.9g

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=160\text{V}$ , $I_E=0$	-	-	1.0	μA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}$ , $I_C=0$	-	-	1.0	μA
Collector-Emitter Breakdown Voltage	2SC2238	$V_{(BR)CEO}$	160	-	-	V
	2SC2238A					
	2SC2238B					
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}$ , $I_C=0$	5	-	-	V
DC Current Gain (Note)	$h_{FE}$	$V_{CE}=5\text{V}$ , $I_C=100\text{mA}$	70	-	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$ , $I_B=50\text{mA}$	-	-	1.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=5\text{V}$ , $I_C=500\text{mA}$	-	-	1.0	V
Transition Frequency	$f_T$	$V_{CE}=10\text{V}$ , $I_C=100\text{mA}$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$	-	25	-	pF

Note : hFE Classification O : 70~140, Y : 120~240

# 2SC2238•2SC2238A•2SC2238B

