

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL (PCT PROCESS)

# 2SA1588

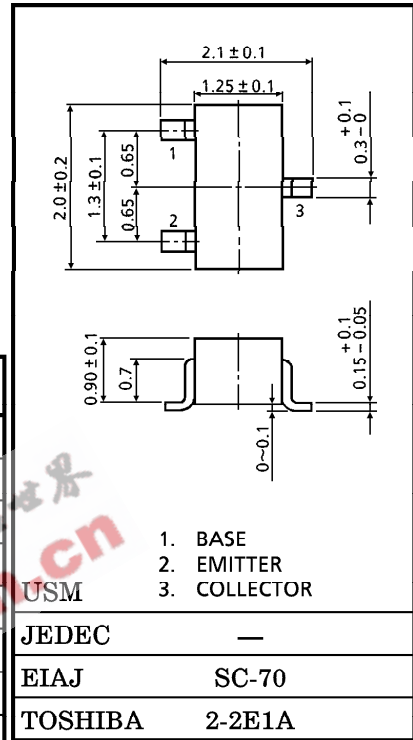
AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS  
 DRIVER STAGE AMPLIFIER APPLICATIONS  
 SWITCHING APPLICATIONS

Unit in mm

- Excellent  $h_{FE}$  Linearity  
 :  $h_{FE}(2) = 25$  (Min.) at  $V_{CE} = -6V, I_C = -400mA$
- Complementary to 2SC4118

MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-35	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-500	mA
Base Current	$I_B$	-50	mA
Collector Power Dissipation	$P_C$	100	mW
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~125	$^\circ C$



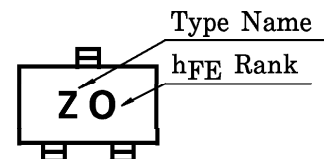
Weight : 0.006g

ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -35V, I_E = 0$	—	—	-0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	—	—	-0.1	$\mu A$
DC Current Gain (Note)	$h_{FE}(1)$	$V_{CE} = -1V, I_C = -100mA$	70	—	240	
	$h_{FE}(2)$	$V_{CE} = -6V, I_C = -400mA$	25	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$	—	-0.1	-0.25	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -1V, I_C = -100mA$	—	-0.8	-1.0	V
Transition Frequency	$f_T$	$V_{CE} = -6V, I_C = -20mA$	—	200	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -6V, I_E = 0, f = 1MHz$	—	13	—	pF

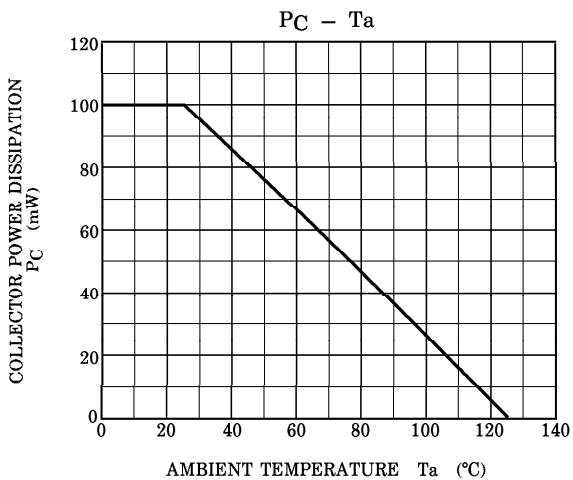
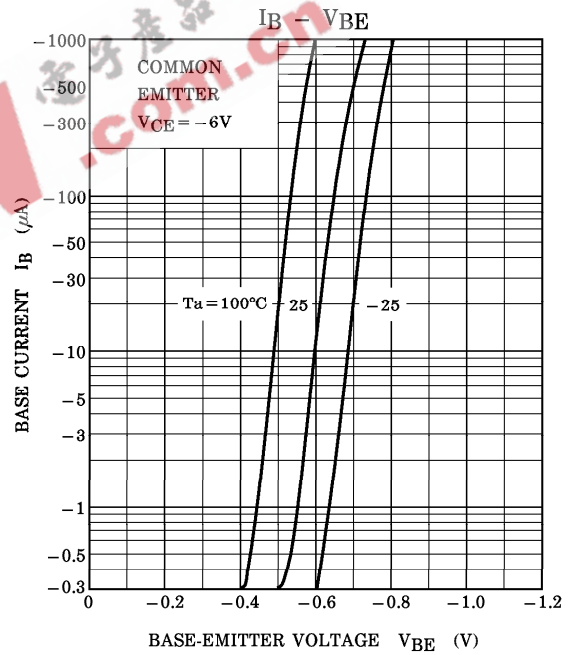
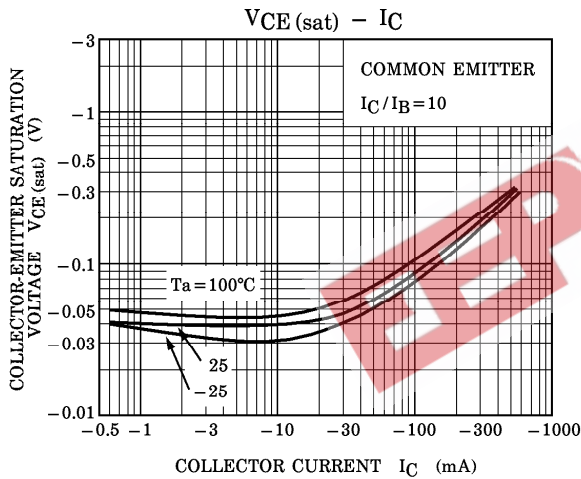
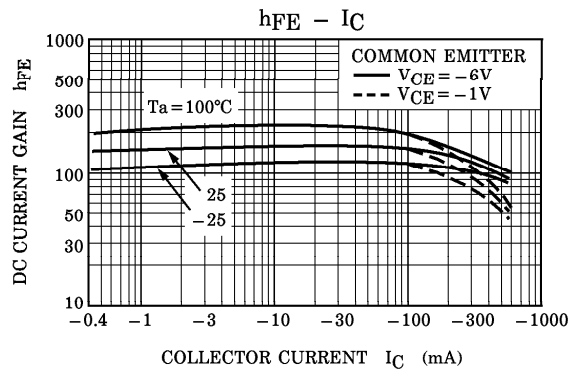
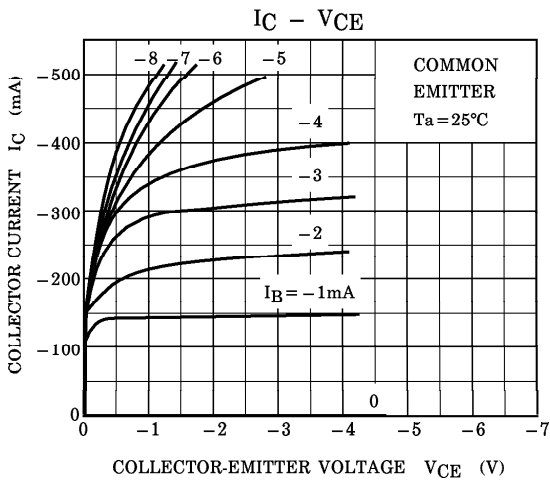
Note :  $h_{FE}(1)$  Classification O : 70~140, Y : 120~240  
 $h_{FE}(2)$  Classification O : 25 (Min.), Y : 40 (Min.)

Marking



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