

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC4118

AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS

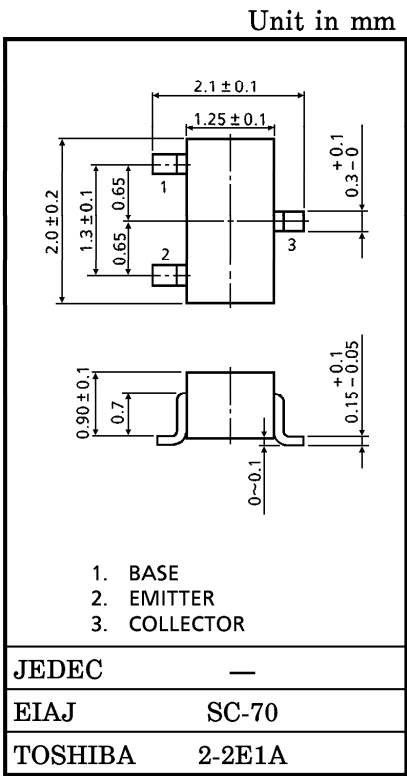
DRIVER STAGE AMPLIFIER APPLICATIONS

SWITCHING APPLICATIONS

- Excellent h_{FE} Linearity : $h_{FE}(2)=25$ (Min.)
($V_{CE}=6V$, $I_C=400mA$)
- Complementary to 2SA1588

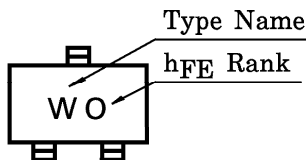
MAXIMUM RATINGS ($T_a = 25^{\circ}C$)

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}	$-55\sim125$	$^{\circ}C$



Weight : 0.006g

MARKING



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=35V, I_E=0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	—	—	0.1	μA
DC Current Gain	$h_{FE} (1)$ (Note)	$V_{CE}=1V, I_C=100mA$	70	—	240	
	$h_{FE} (2)$ (Note)	$V_{CE}=6V, I_C=400mA$	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	$V_{CE}=6V, I_C=20mA$	—	300	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=6V, I_E=0, f=1MHz$	—	7	—	pF

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

