

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

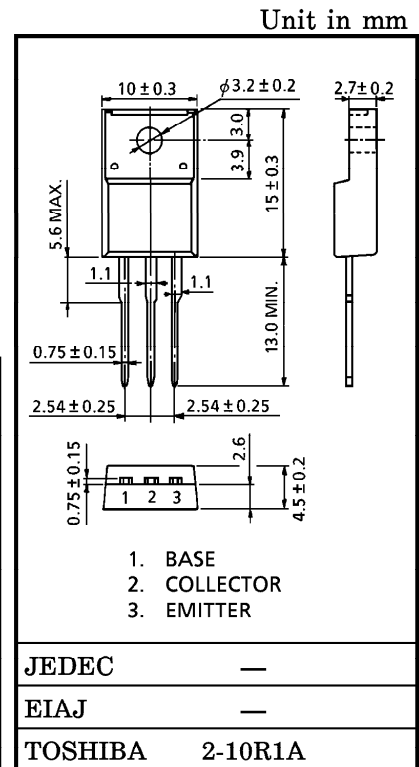
# 2SA1327A

STROBE FLASH APPLICATIONS  
AUDIO POWER AMPLIFIER APPLICATIONS

- High DC Current Gain :  $h_{FE} = 70$  (min.)  
( $V_{CE} = -2V, I_C = -1A$ )
- Low Collector Saturation Voltage :  $V_{CE(sat)} = -0.5V$  (max.)  
( $I_C = -8A, I_B = -0.4A$ )
- High Collector Power Dissipation :  $P_C = 20W$  ( $T_c = 25^\circ C$ )

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	-50	V
Collector-Emitter Voltage		$V_{CEO}$	-20	V
Emitter-Base Voltage		$V_{EBO}$	-8	V
Collector Current	DC	$I_C$	-10	A
	Pulse	$I_{CP}$	-20	
Base Current		$I_B$	-2	A
Collector Power Dissipation	$T_a = 25^\circ C$	$P_C$	2.0	W
	$T_c = 25^\circ C$		20	
Junction Temperature		$T_j$	150	$^\circ C$
Storage Temperature Range		$T_{stg}$	-55~150	$^\circ C$



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$	—	—	-1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -8V, I_C = 0$	—	—	-1.0	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-20	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -2V, I_C = -1A$	100	—	320	—
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -8A$	70	140	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -8A, I_B = -0.4A$	—	-0.3	-0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -2V, I_C = -8A$	—	-0.95	-1.5	V
Transition Frequency	$f_T$	$V_{CE} = -2V, I_C = -1A$	—	45	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	400	—	pF

(Note) :  $h_{FE(1)}$  Classification O : 100~200, Y : 160~320

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