

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

# 2SC3279

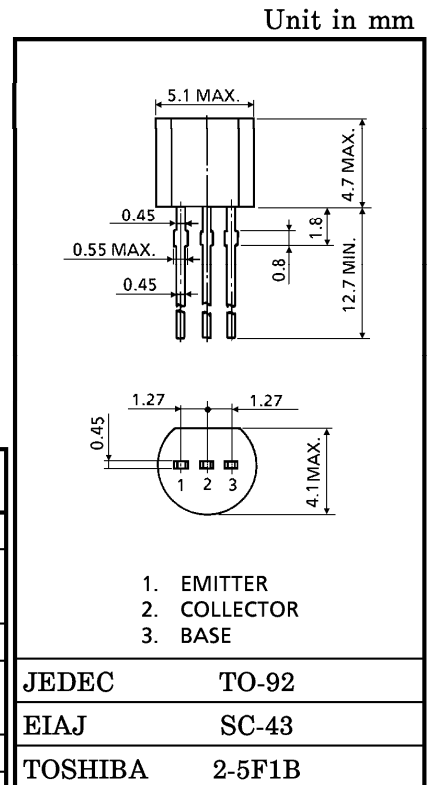
STOROBO FLASH APPLICATIONS

MEDIUM POWER AMPLIFIER APPLICATIONS

- High DC Current Gain and Excellent  $h_{FE}$  Linearity
  - :  $h_{FE}(1) = 140 \sim 600$  ( $V_{CE} = 1V, I_C = 0.5A$ )
  - :  $h_{FE}(2) = 70$  (Min.), 200 (Typ.) ( $V_{CE} = 1V, I_C = 2A$ )
- Low Saturation Voltage
  - :  $V_{CE(sat)} = 0.5V$  (Max.) ( $I_C = 2A, I_B = 50mA$ )

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CES}$	30	V
	$V_{CEO}$	10	
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	DC	$I_C$	A
	Pulsed (Note 1)	$I_{CP}$	
Base Current	$I_B$	0.2	A
Collector Power Dissipation	$P_C$	750	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$



Weight : 0.21 g

(Note 1) : Pulse Width = 10 ms (Max.), Duty Cycle = 30% (Max.)

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## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 30\text{ V}, I_E = 0$	—	—	0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 6\text{ V}, I_C = 0$	—	—	0.1	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	10	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{ mA}, I_C = 0$	6	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note 2)	$V_{CE} = 1\text{ V}, I_C = 0.5\text{ A}$	140	—	600	
	$h_{FE(2)}$	$V_{CE} = 1\text{ V}, I_C = 2\text{ A}$	70	200	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 50\text{ mA}$	—	0.2	0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 1\text{ V}, I_C = 2\text{ A}$	—	0.86	1.5	V
Transition Frequency	$f_T$	$V_{CE} = 1\text{ V}, I_C = 0.5\text{ A}$	—	150	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	27	—	pF

(Note 2) :  $h_{FE(1)}$  Classification    L : 140~240,    M : 200~330,    N : 300~450,    P : 420~600

