

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2873

POWER AMPLIFIER APPLICATIONS

POWER SWITCHING APPLICATIONS

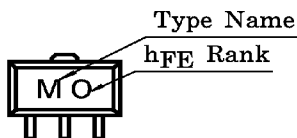
- Low Saturation Voltage : $V_{CE(sat)} = 0.5V$ (Max.) ($I_C = 1A$)
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- $P_C = 1 \sim 2W$ (Mounted on Ceramic Substrate)
- Small Flat Package
- Complementary to 2SA1213

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

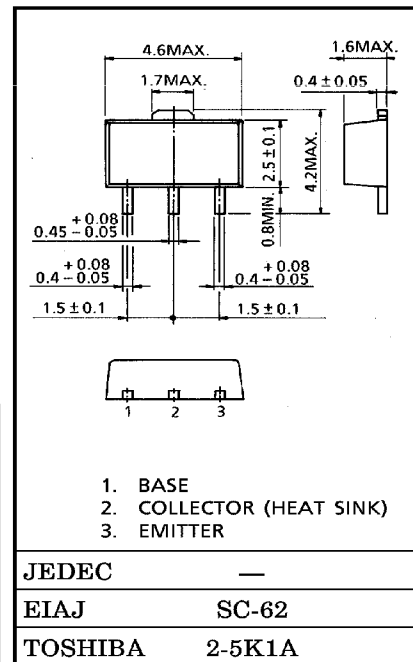
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Base Current	I_B	0.4	A
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation	P_C (Note)	1000	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

(Note) : Mounted on ceramic substrate ($250mm^2 \times 0.8t$)

MARKING



Unit in mm



Weight : 0.05g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	ICBO	V _{CB} = 50V, I _E = 0	—	—	0.1	μA	
Emitter Cut-off Current	IEBO	V _{EB} = 5V, I _C = 0	—	—	0.1	μA	
Collector-Emitter Breakdown Voltage	V (BR) CEO	I _C = 10mA, I _B = 0	50	—	—	V	
DC Current Gain	h _{FE} (1) (Note)	V _{CE} = 2V, I _C = 0.5A	70	—	240		
	h _{FE} (2)	V _{CE} = 2V, I _C = 2.0A	20	—	—		
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C = 1A, I _B = 0.05A	—	—	0.5	V	
Base-Emitter Saturation Voltage	V _{BE} (sat)	I _C = 1A, I _B = 0.05A	—	—	1.2	V	
Transition Frequency	f _T	V _{CE} = 2V, I _C = 0.5A	—	120	—	MHz	
Collector Output Capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz	—	30	—	pF	
Switching Time	Turn-on Time	t _{on}		—	0.1	—	μs
	Storage Time	t _{stg}		—	1.0	—	
	Fall Time	t _f		I _{B1} = -I _{B2} = 0.05A, DUTY CYCLE ≤ 1%	—	0.1	

(Note) : h_{FE} (1) Classification O : 70~140, Y : 120~240

