

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1213

POWER AMPLIFIER APPLICATIONS

POWER SWITCHING APPLICATIONS

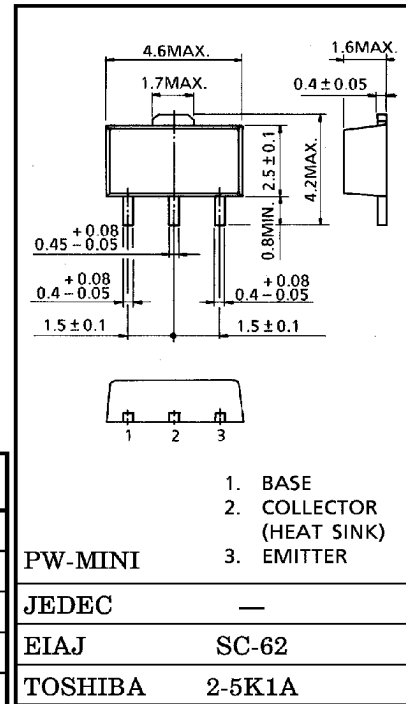
- Low Saturation Voltage : $V_{CE(sat)} = -0.5V$ (Max.)
($I_C = -1A$)
- High Speed Switching Time: $t_{stg} = 1.0\mu s$ (Typ.)
- $P_C = 1\sim 2W$ (Mounted on Ceramic Substrate)
- Small Flat Package
- Complementary to 2SC2873

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EB0}	-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^*	1000	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

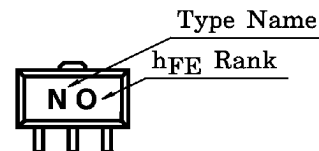
* : Mounted on ceramic substrate (250mm²×0.8t)

Unit in mm



Weight : 0.05g

Marking



961001EAA2

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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	—	40	—	pF				
Switching Time	Turn-on Time	t _{on}	<p>20μs -I_{B1} = I_{B2} = 0.05A, DUTY CYCLE ≤ 1%</p>				—	0.1	—	μs
	Storage Time	t _{stg}					—	1.0	—	
	Fall Time	t _f					—	0.1	—	

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

