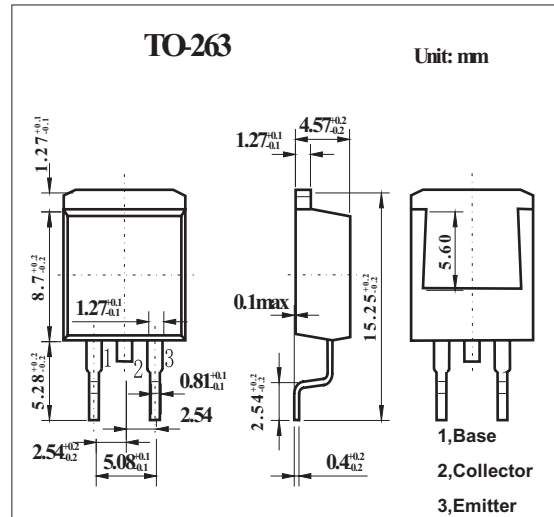


2SC4601

■ Features

- Surface mount type device making the following possible.
- Reduction in the number of manufacturing processes for 2SC4601-applied equipment.
- High density surface mount applications.
- Small size of 2SC4601-applied equipment.
- High breakdown voltage, high reliability.
- Fast switching speed.
- Wide ASO.
- Adoption of MBIT process.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	1100	V
Collector-emitter voltage	V _{CEO}	800	V
Emitter-base voltage	V _{EBO}	7	V
Collector current (DC)	I _C	1.5	A
Collector current (Pulse) *	I _{CP}	5	
Base current	I _B	0.8	A
Collector power dissipation	P _C	T _a = 25°C	1.65
		T _c = 25°C	40
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to +150	°C

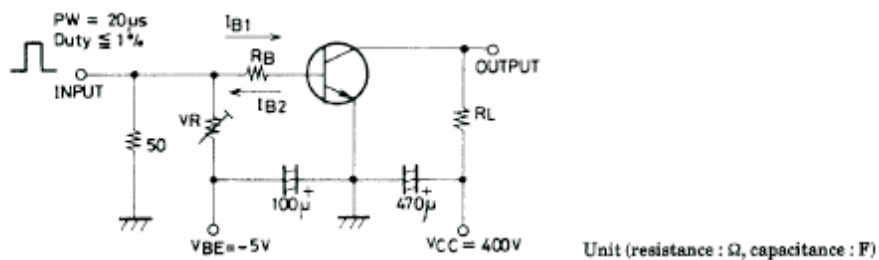
* PW ≤ 300ms, duty cycle ≤ 10%

2SC4601

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cut-off current	IcBO	V _{CB} = 800 V, I _E = 0			10	μA
Emitter cut-off current	IeBO	V _{EB} = 5 V, I _C = 0			10	μA
DC current gain	hFE	V _{CE} = 5 V, I _C = 0.1A	10		40	
		V _{CE} = 5 V, I _C = 0.5A	8			
Gain-Bandwidth product	fT	V _{CE} = 10 V, I _C = 0.1A		15		MHz
Output Capacitance	Cob	V _{CB} = 10V, f = 1MHz		35		pF
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 0.75 A, I _B = 0.15 A			2.0	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 0.75 A, I _B = 0.15 A			1.5	V
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 1 mA, I _E = 0	1100			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 5 mA, R _{BE} = ∞	800			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E = 1mA, I _C = 0	7			V
Collector-to-Emitter Sustain Voltage	V _{CEO(SUS)}	I _C = 0.75A, I _{B1} = -I _{B2} = 0.15A, L = 50mH	800			V
Turn-ON time	ton	I _C = 1A, I _{B1} = 0.2A, I _{B2} = -0.4A, R _L = 400 Ω, V _{CC} = 400V			0.5	μs
Storage time	tstg				3.0	
Fall time	tf				0.3	

■ Switching Time Test Circuit



■ hFE Classification

Rank	K	L	M
hFE	10 to 20	15 to 30	20 to 40