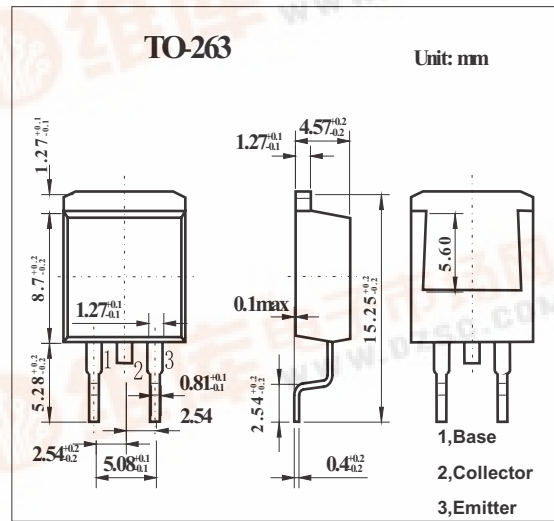


SMD Type Transistors

NPN Triple Diffused Planar Silicon Transistor
2SC4602

■ Features

- Surface mount type device making the following possible.
- Reduction in the number of manufacturing processes for 2SC4602-applied equipment.
- High density surface mount applications.
- Small size of 2SC4602-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	3	A
Collector current (Pulse) *	I _{CP}	10	
Base current	I _B	1.5	A
Collector power dissipation	P _C	T _a = 25°C	W
		T _c = 25°C	
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55 to +150	°C

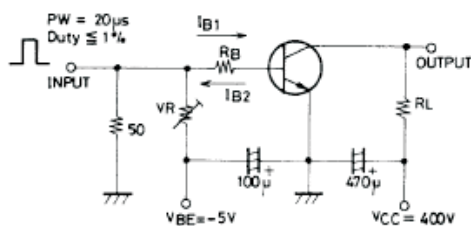
* PW ≤ 300ms, duty cycle ≤ 10%

2SC4602

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	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	h _{FE}	V _{CE} = 5 V, I _C = 0.2A	10		40	
		V _{CE} = 5 V, I _C = 1A	8			
Gain-Bandwidth product	f _T	V _{CE} = 10 V, I _C = 0.2A		15		MHz
Output Capacitance	C _{ob}	V _{CB} = 10V, f = 1MHz		60		pF
Collector-emitter saturation voltage	V _{CE (sat)}	I _C = 1.5 A, I _B = 0.3A			2.0	V
Base-emitter saturation voltage	V _{BE (sat)}	I _C = 1.5 A, I _B = 0.3 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 = 1.5A, I _{B1} = -I _{B2} = 0.3A, L = 2mH	800			V
Turn-ON time	t _{on}	I _C = 2A, I _{B1} = 0.4A, I _{B2} = -0.8A, R _L = 200 Ω, V _{CC} = 400V			0.5	μs
Storage time	t _{stg}				3.0	
Fall time	t _f				0.3	

■ Switching Time Test Circuit



Unit (resistance : Ω, capacitance : F)

■ hFE Classification

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