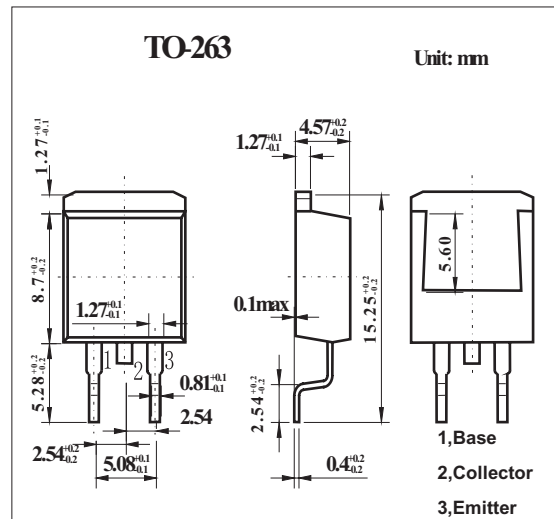


■ Features

- Surface mount type device making the following possible.
- Reduction in the number of manufacturing processes for 2SC4600-applied equipment.
- High density surface mount applications.
- Small size of 2SC4600-applied equipment.
- High breakdown voltage, high reliability.
- Fast switching speed.
- Wide ASO.
- Adoption of MBIT process.



■ Absolute Maximum Ratings Ta = 25°C

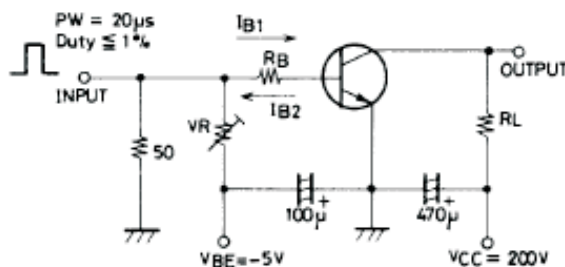
Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	800	V
Collector-emitter voltage	V _{CE0}	500	V
Emitter-base voltage	V _{EB0}	7	V
Collector current (DC)	I _C	5	A
Collector current (Pulse) *	I _{CP}	10	
Base current	I _B	2	A
Collector power dissipation Ta = 25°C Tc = 25°C	P _C	1.65	W
		50	
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55 to +150	°C

* PW ≤ 300ms, duty cycle ≤ 10%

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	IcBO	V _{CB} = 500 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 = 0.6A	15		50	
		V _{CE} = 5 V, I _C = 3A	8			
Gain-Bandwidth product	fT	V _{CE} = 10 V, I _C = 0.6A		18		MHz
Output Capacitance	Cob	V _{CB} = 10V, f = 1MHz		80		pF
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 3 A, I _B = 0.6 A			1.0	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 3 A, I _B = 0.6 A			1.5	V
Collector-base breakdown voltage	V(BR)CBO	I _C = 1 mA, I _E = 0	800			V
Collector-emitter breakdown voltage	V(BR)CEO	I _C = 5 mA, R _{BE} = ∞	500			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 = 5A, I _{B1} = 1A, L = 50μH	500			V
		V _{CES(SUS)}	I _C = 2.5A, I _{B1} = -I _{B2} = 1A, L = 1mH	500		
Turn-ON time	ton	I _C = 4A, I _{B1} = 0.8A, I _{B2} = -1.6A, R _L = 50 Ω, V _{CC} = 200V			0.5	μs
Storage time	tstg				3.0	
Fall time	tr				0.3	

■ Switching Time Test Circuit



Unit (resistance : Ω, capacitance : F)

■ hFE Classification

Rank	L	M	N
hFE	15 to 30	20 to 40	30 to 50