

2SD1663

Silicon NPN Triple-Diffused Junction Mesa Type

Power Switching

■ Features

- High breakdown voltage and high reliability by a glass passivation
- High speed switching
- Wide area of safety operation (ASO)
- "Full Pack" package for simplified mounting on a heat sink with one screw

■ Absolute Maximum Ratings (T_c=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	V _{CB0}	1500	V
Collector-emitter voltage	V _{CES}	1500	V
Collector-emitter voltage	V _{EBO}	7.7	V
Peak collector current	I _{CP} *	10	A
Collector current	I _C	5	A
Base current	I _B	3	A
Collector power dissipation	P _C	T _c = 25°C	80
		T _a = 25°C	3
Collector power dissipation (T _c =25°C)	P _C	80	W
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 ~ +150	°C

* Non-repetitive peak value

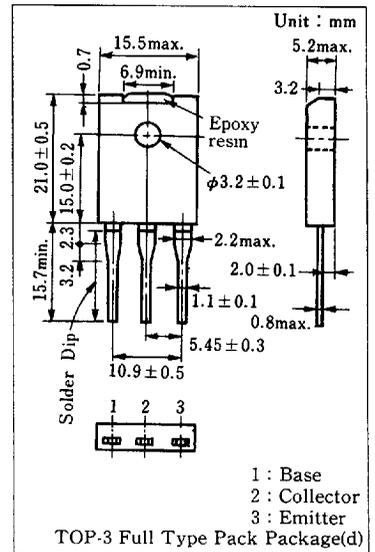
■ Electrical Characteristics (T_c=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I _{CB0}	V _{CB} = 750 V, I _E = 0			50	μA
		V _{CB} = 1500 V, I _E = 0			1	mA
Emitter cutoff current	I _{EBO}	V _{EB} = 7.7V, I _C = 0			100	μA
Collector-emitter voltage	V _{CEO(sus)}	I _C = 0.5 A, L = 50 mH	700			V
DC current gain	h _{FE} *	V _{CE} = 5 V, I _C = 1 A	18		50	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 4.5 A, I _B = 2 A			2	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 4.5 A, I _B = 2 A			1.5	V
Turn-on time	t _{on}	I _C = 2.5A, I _{B1} = 0.5A, I _{B2} = -1A V _{CC} = 200V			1	μs
Collector current fall time	t _f				0.5	μs
Storage time	t _{stg}				3	μs
Transition frequency	f _T	V _{CE} = 10V, I _C = 1A, f = 0.5MHz		2		MHz

*h_{FE} Classifications

Class	Q	P
h _{FE}	18 ~ 34	18 ~ 50

■ Package Dimensions



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