

2SD1251, 2SD1251A

Silicon NPN Triple-Diffused Planar Type

Power Amplifier

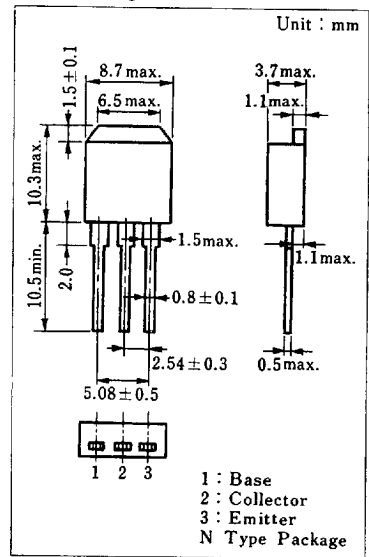
■ Features

- Wide area of safety operation (ASO)
- "N Type" package configuration with a cooling fin for direct soldering on PC board of a small-size electronic equipment

■ Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	2SD1251	60	V
	2SD1251A	80	
Collector-emitter voltage	2SD1251	60	V
	2SD1251A	80	
Emitter-base voltage	V _{EB0}	8	V
Peak collector current	I _{CP}	6	A
Collector current	I _C	4	A
Base current	I _B	1	A
Collector power dissipation	T _c = 25 °C	30	W
	T _a = 25 °C	1.3	
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 ~ +150	°C

■ Package Dimensions



*Surface-mount type is also available. (Refer to p.82.)

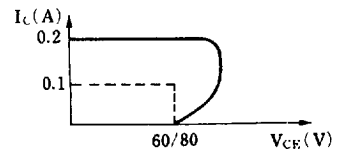
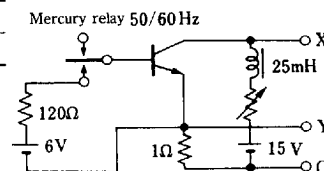
■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I _{CB0}	V _{CB} = 20 V, I _E = 0			30	μA
Emitter cutoff current	I _{EB0}	V _{EB} = 8 V, I _C = 0			1	mA
Collector-emitter voltage	V _{CE0(sus)} *2	I _C = 0.2 A, L = 25 mH	60			V
		I _C = 0.2 A, L = 25 mH	80			
DC current gain	h _{FE1}	V _{CE} = 3 V, I _C = 0.1 A	40			
	h _{FE2} *1	V _{CE} = 3 V, I _C = 1 A	30		160	
Base-emitter voltage	V _{BE}	V _{CE} = 3 V, I _C = 1 A			1.2	V
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 2 A, I _B = 0.4 A			1	V
Transition frequency	f _T	V _{CE} = 10V, I _C = 0.2A, f = 0.5MHz		1		MHz

*1 h_{FE2} Classifications

Class	Q	P	O
h _{FE2}	30 ~ 60	50 ~ 100	80 ~ 160

*2 V_{CE0(sus)} Test method



2SD1251/2SD1251A

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