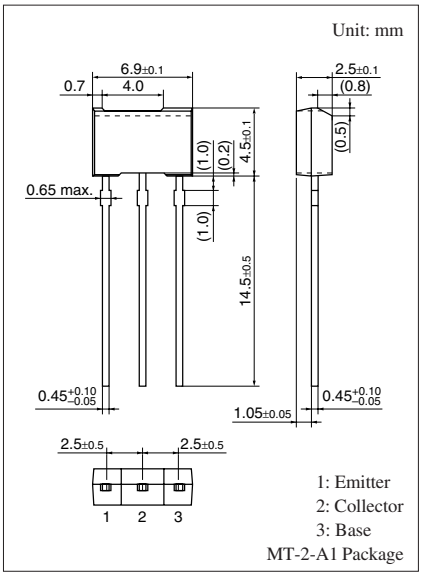
2SD2358

Silicon NPN epitaxial planar type

For low-frequency output amplification
Complementary to 2SB1538



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$: < 0.15 V
- Allowing supply with the radial taping

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	10	V
Collector-emitter voltage (Base open)	V_{CEO}	10	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	1	A
Peak collector current	I_{CP}	1.2	A
Collector power dissipation *	P_C	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: Printed circuit board: Copper foil area of 1 cm^2 or more, and the board thickness of 1.7 mm for the collector portion

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	I_C = 10 µA, I_E = 0	10			V
Collector-emitter voltage (Base open)	V_{CEO}	I_C = 1 mA, I_B = 0	10			V
Emitter-base voltage (Collector open)	V_{EBO}	I_E = 10 µA, I_C = 0	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	V_{CB} = 7 V, I_E = 0			1	µA
Forward current transfer ratio	h_{FE}	V_{CE} = 2 V, I_C = 100 mA	200		800	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 500 mA, I_B = 20 mA			0.15	V
Transition frequency	f_T	V_{CB} = 5 V, I_E = −50 mA, f = 200 MHz		120		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	V_{CB} = 20 V, I_E = 0, f = 1 MHz		30		pF

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

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