

DSC8505

Silicon NPN epitaxial planar type

For low frequency output amplification

DSC7505 in MT-2 through hole type package

■ Features

- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

Radial type : 2000 pcs / carton

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	40	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	7	V
Collector current	I_{C}	3	A
Peak collector current	I_{CP}	5	A
Collector power dissipation	P_{C}	1	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

■ Package

- Code
MT-2-A2-B
- Pin Name
 1. Emitter
 2. Collector
 3. Base

■ Marking Symbol: 5G

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 1 \text{ mA}, I_{\text{B}} = 0$	20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_{\text{E}} = 10 \mu\text{A}, I_{\text{C}} = 0$	7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 10 \text{ V}, I_{\text{E}} = 0$			0.1	μA
Forward current transfer ratio *1	h_{FE1} *2	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 0.5 \text{ A}$	230		600	—
	h_{FE2}	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 2 \text{ A}$	150			
Collector-emitter saturation voltage *1	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 3 \text{ A}, I_{\text{B}} = 0.1 \text{ A}$			1.0	V
Transition frequency *1	f_{T}	$V_{\text{CE}} = 6 \text{ V}, I_{\text{C}} = 50 \text{ mA}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = 20 \text{ V}, I_{\text{E}} = 0, f = 1 \text{ MHz}$			50	pF

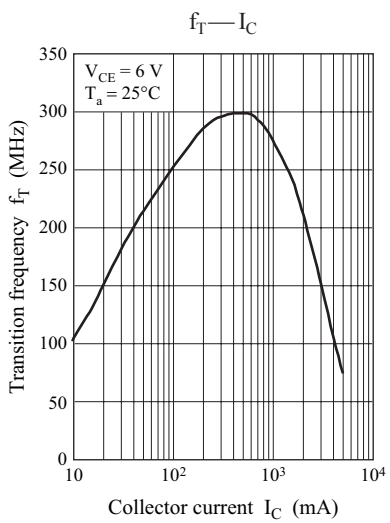
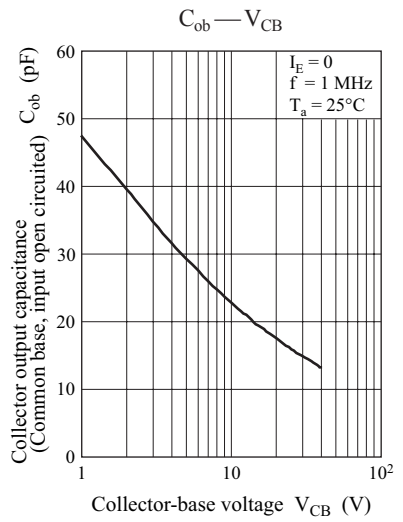
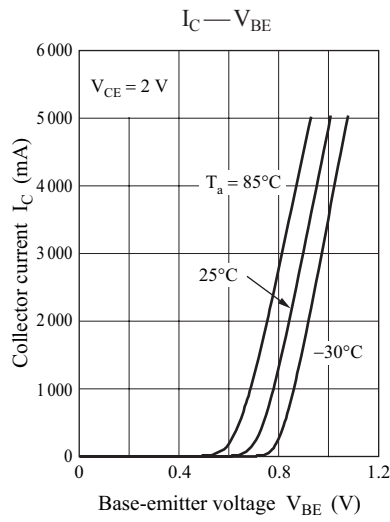
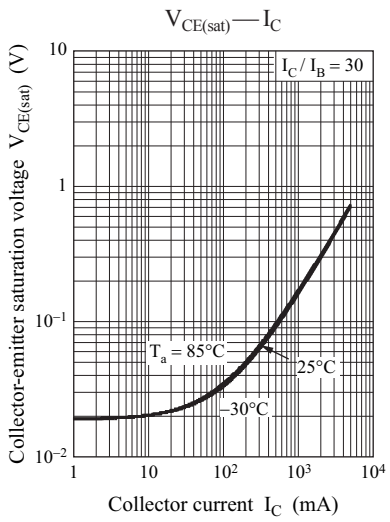
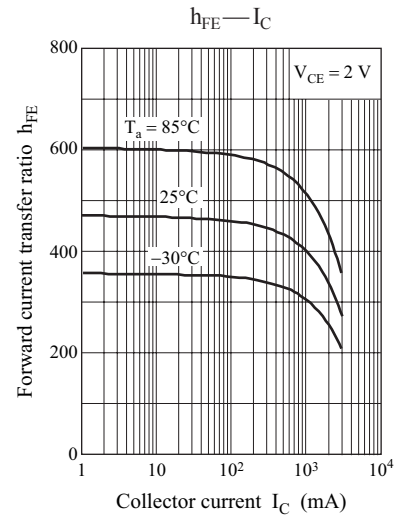
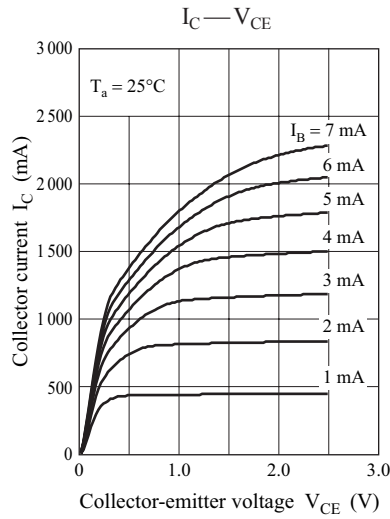
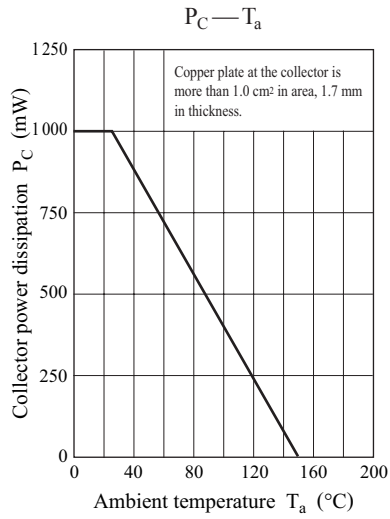
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

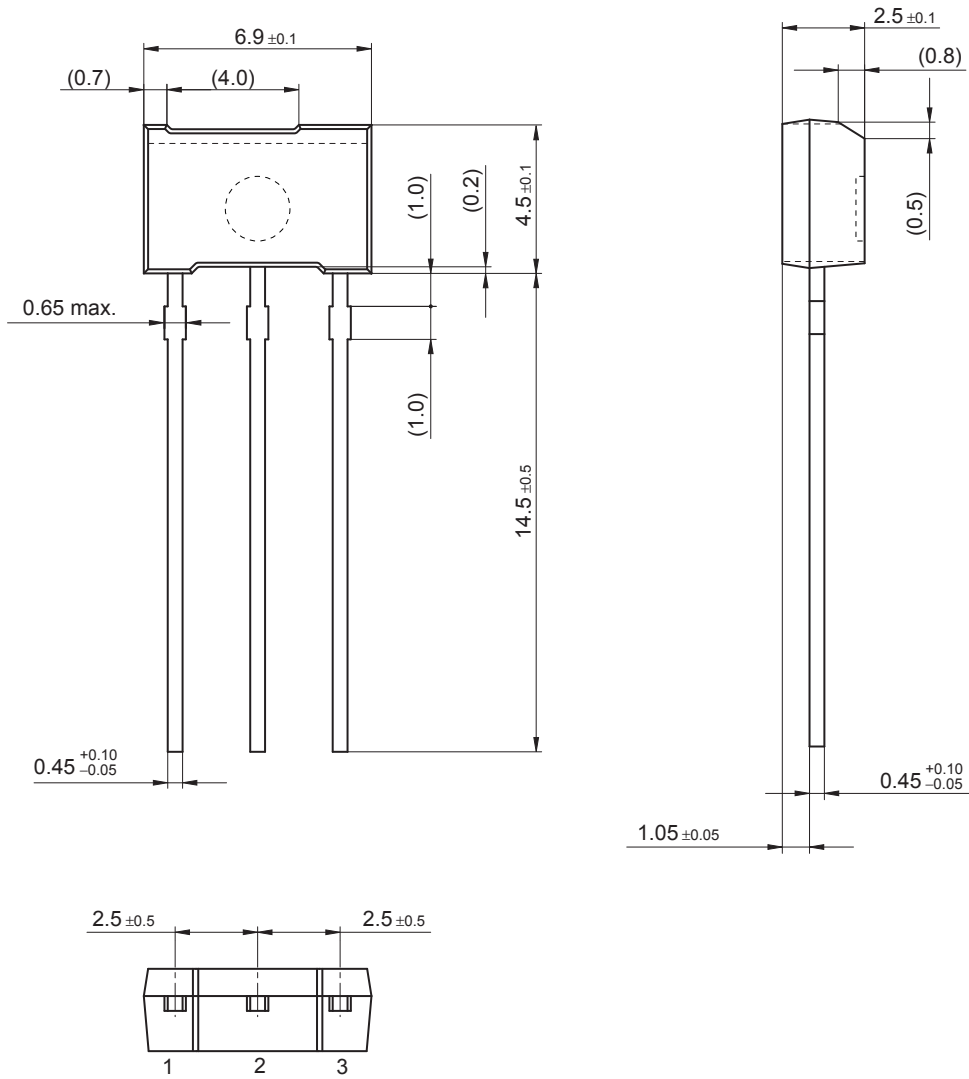
Code	Q	R
Rank	Q	R
h_{FE1}	230 to 380	340 to 600
Marking Symbol	5GQ	5GR

Product of no-rank is not classified and have no marking symbol for rank.



MT-2-A2-B

Unit: mm



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