



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DSC2P01

Silicon NPN epitaxial planar type

For low frequency amplification
Darlington connection

■ Features

- High forward current transfer ratio h_{FE} with excellent linearity
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

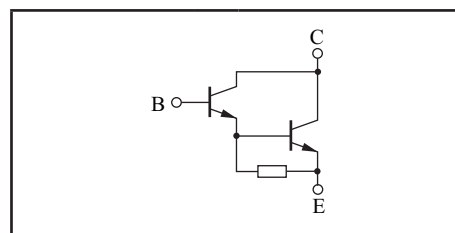
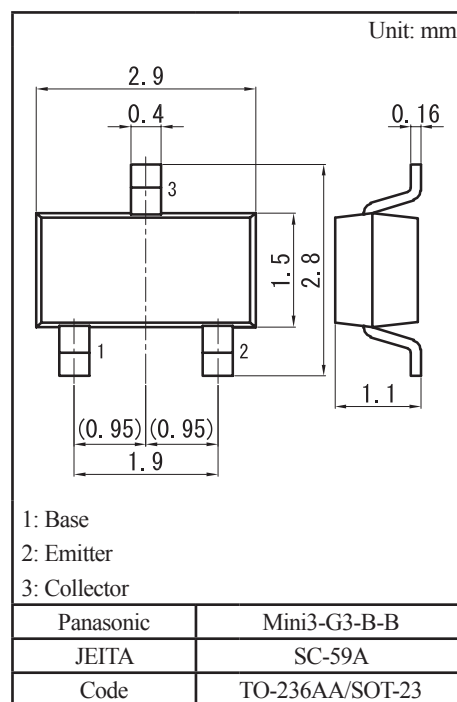
■ Marking Symbol: E5

■ Packaging

DSC2P01×0L Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	60	V
Collector-emitter voltage (Base open)	V_{CEO}	50	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	500	mA
Peak collector current	I_{CP}	750	mA
Total power dissipation	P_T	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



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

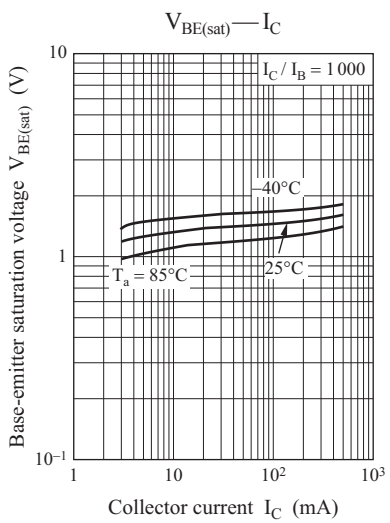
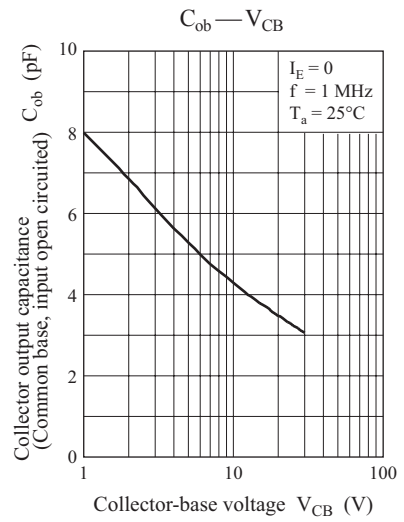
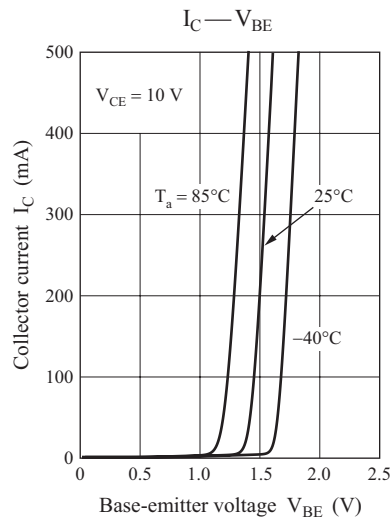
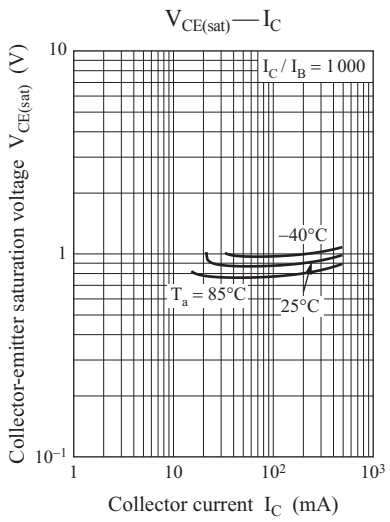
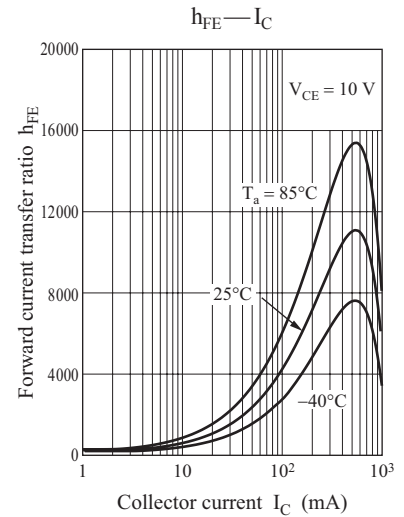
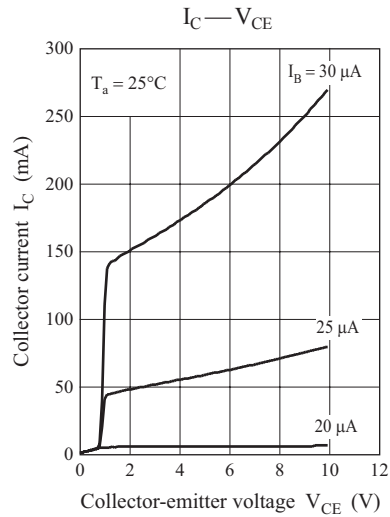
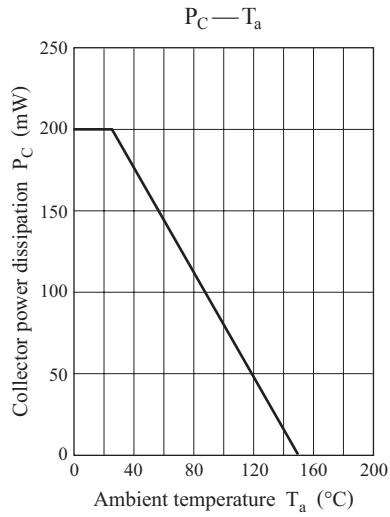
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 100 \mu\text{A}, I_E = 0$	60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 100 \mu\text{A}, I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 25 \text{ V}, I_E = 0$			100	nA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 4 \text{ V}, I_C = 0$			100	nA
Forward current transfer ratio *1, 2	h_{FE}	$V_{CE} = 10 \text{ V}, I_C = 500 \text{ mA}$	4000		20000	—
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = 500 \text{ mA}, I_B = 0.5 \text{ mA}$			2.5	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = 500 \text{ mA}, I_B = 0.5 \text{ mA}$			3.0	V

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

2. *1: Pulse measurement

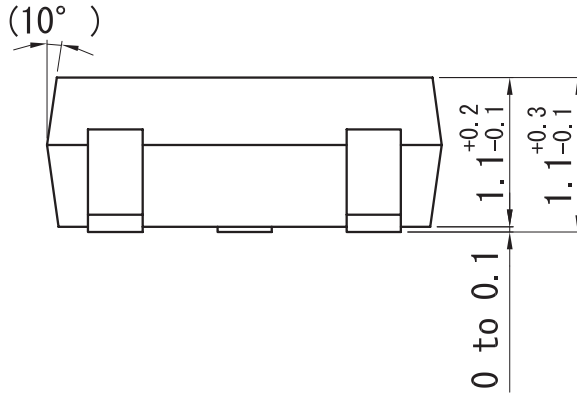
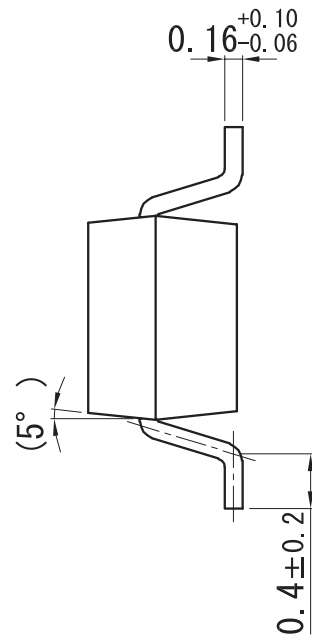
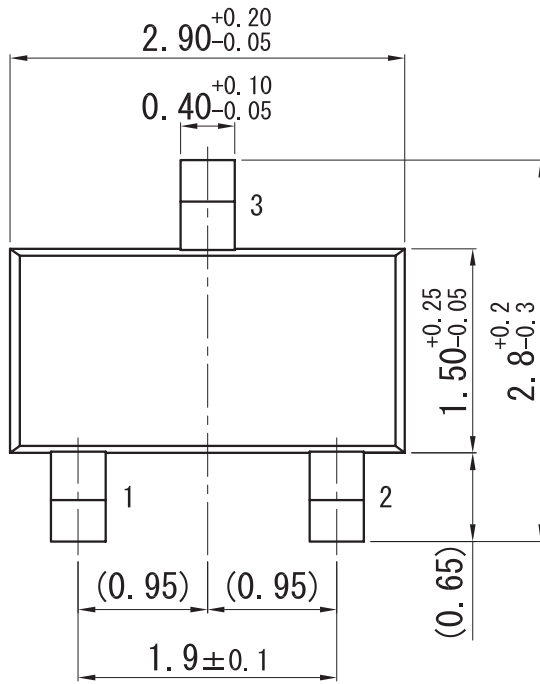
*2: Rank classification

Code	Q	R
Rank	Q	R
h_{FE}	4000 to 10000	8000 to 20000
Marking Symbol	E5Q	E5R

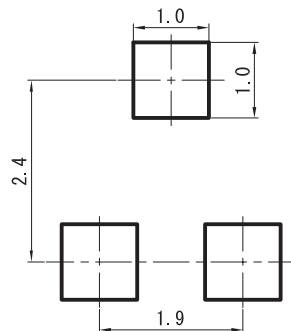


Mini3-G3-B-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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