

2SC5725

Silicon NPN epitaxial planer type

For DC-DC converter

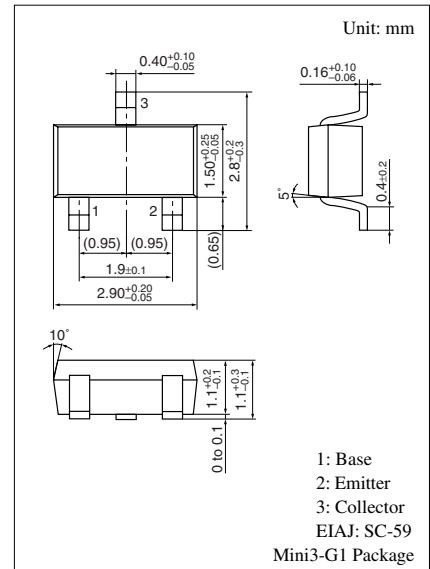
■ Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$
- Mini3-G1 type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	20	V
Collector to emitter voltage	V_{CEO}	15	V
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	6	A
Collector current	I_C	2.0	A
Collector power dissipation *	P_C	600	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) *: Measure on the ceramic substrate at $15 \times 15 \times 0.6 \text{ mm}^3$



Marking Symbol: 3C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 10 \text{ V}, I_E = 0$			0.1	μA
Collector to base voltage	V_{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	20			V
Collector to emitter voltage	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	15			V
Emitter to base voltage	V_{EBO}	$I_E = 10 \mu\text{A}, I_C = 0$	5			V
Forward current transfer ratio *	h_{FE1}	$V_{CE} = 2 \text{ V}, I_C = 100 \text{ mA}$	200		800	
	h_{FE2}	$V_{CE} = 2 \text{ V}, I_C = 1.5 \text{ A}$	120			
Collector to emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 0.5 \text{ A}, I_B = 25 \text{ mA}$		40	100	mV
		$I_C = 1.5 \text{ A}, I_B = 30 \text{ mA}$		130	280	mV
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		15	25	pF
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		280		MHz

Note) *: Pulse measurement

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