2SB0949, 2SB0949A (2SB949, 2SB949A)

Silicon PNP epitaxial planar type Darlington

For power amplification and switching Complementary to 2SD1275 and 2SD1275A

■ Features

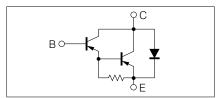
- High forward current transfer ratio h_{FE}
- High-speed switching
- Full-pack package which can be installed to the heat sink with one screw

■ Absolute Maximum Ratings $T_C = 25$ °C

Parameter		Symbol	Rating	Unit
Collector to base	2SB0949	V_{CBO}	-60	V
voltage	2SB0949A		-80	
Collector to	2SB0949	V_{CEO}	-60	V
emitter voltage	2SB0949A		-80	
Emitter to base voltage		V_{EBO}	-5	V
Peak collector current		I_{CP}	-4	A
Collector current		I_C	-2	A
Collector power	$T_C = 25^{\circ}C$	$P_{\rm C}$	35	W
dissipation	$T_a = 25^{\circ}C$		2	
Junction temperature		T _j	150	°C
Storage temperature		T_{stg}	-55 to +150	°C

Unit: mm 4,2±0,2 5,5±0,2 2,7±0,2 4,2±0,2 4,2±0,2 2,7±0,2 4,2±0,2 4,

Internal Connection



■ Electrical Characteristics $T_C = 25$ °C

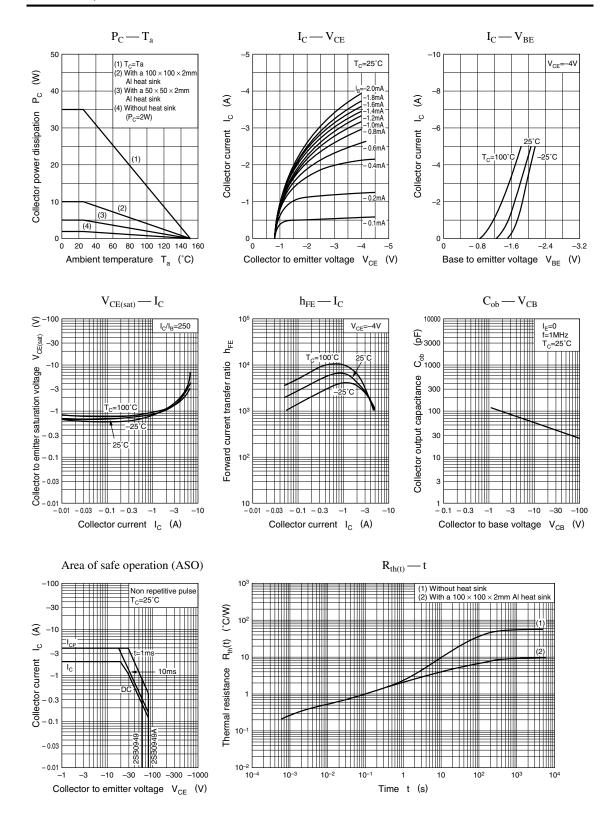
Parameter	r	Symbol	Conditions	Min	Тур	Max	Unit
Collector cutoff	2SB0949	I_{CBO}	$V_{CB} = -60 \text{ V}, I_E = 0$			-1	mA
current	2SB0949A		$V_{CB} = -80 \text{ V}, I_{E} = 0$			-1	
Collector cutoff	2SB0949	I_{CEO}	$V_{CB} = -30 \text{ V}, I_B = 0$			-2	mA
current	2SB0949A		$V_{CB} = -40 \text{ V}, I_B = 0$			-2	
Emitter cutoff current	•	I_{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$			-2	mA
Collector to emitter	2SB0949	V _{CEO}	$I_{\rm C} = -30 \text{ mA}, I_{\rm B} = 0$	-60			V
voltage	2SB0949A			-80			
Forward current transfe	er ratio	h _{FE1}	$V_{CE} = -4 \text{ V}, I_{C} = -1 \text{ A}$	1 000			
		h _{FE2} *	$V_{CE} = -4 \text{ V}, I_{C} = -2 \text{ A}$	2 000		10 000	
Base to emitter voltage		V_{BE}	$V_{CE} = -4 \text{ V}, I_C = -2 \text{ A}$			-2.8	V
Collector to emitter saturation voltage		V _{CE(sat)}	$I_{\rm C} = -2 \text{ A}, I_{\rm B} = -8 \text{ mA}$			-2.5	V
Transition frequency		f_T	$V_{CE} = -10 \text{ V}, I_{C} = -0.5 \text{ A}, f = 1 \text{ MHz}$		20		MHz
Turn-on time		t _{on}	$I_C = -2 \text{ A}, I_{B1} = -8 \text{ mA}, I_{B2} = 8 \text{ mA},$		0.4		μs
Storage time		t _{stg}	$V_{CC} = -50 \text{ V}$		1.5		μs
Fall time		$t_{\rm f}$			0.5		μs

Note) *: Rank classification

•	Rank	Q	Р
	h_{FE2}	2 000 to 5 000	4 000 to 10 000

Note.) The Part numbers in the Parenthesis show conventional part number.

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