Power Transistors Panasonic

2SB1175

Silicon PNP epitaxial planar type

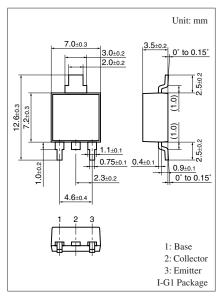
For voltage switching Complementary to 2SD1745

■ Features

- Low collector-emitter saturation voltage V_{CE(sat)}
- Satisfactory linearity of forward current transfer ratio h_{FE}
- Large collector current I_C
- I type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment

■ Absolute Maximum Ratings $T_C = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitt	V_{CBO}	-130	V	
Collector-emitter voltage (Ba	V _{CEO}	-80	V	
Emitter-base voltage (Collect	V _{EBO}	-7	V	
Collector current	I_{C}	-4	A	
Peak collector current	I_{CP}	-8	A	
Collector power dissipation		P_{C}	15	W
Ta	$_{\rm a} = 25^{\circ}{\rm C}$		1.3	
Junction temperature		T_{j}	150	°C
Storage temperature		T _{stg}	-55 to +150	°C



Note) Self-supported type package is also prepared.

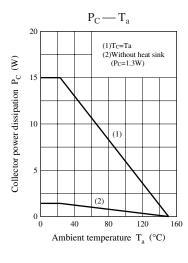
■ Electrical Characteristics $T_C = 25^{\circ}C \pm 3^{\circ}C$

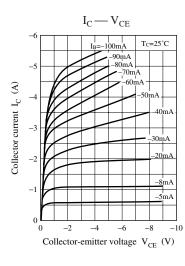
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = -10 \text{ mA}, I_B = 0$	-80			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -100 \text{ V}, I_E = 0$			-10	μΑ
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$			-50	μΑ
Forward current transfer ratio	h _{FE1}	$V_{CE} = -2 \text{ V}, I_{C} = -0.1 \text{ A}$	45			_
	h _{FE2} *	$V_{CE} = -2 \text{ V}, I_{C} = -1 \text{ A}$	90		260	
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = -3 A, I_B = -0.15 A$			- 0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_C = -3 A, I_B = -0.15 A$			-1.5	V
Transition frequency	f_T	$V_{CE} = -10 \text{ V}, I_{C} = -0.5 \text{ A}, f = 10 \text{ MHz}$		30		MHz
Turn-on time	t _{on}	$I_C = -1 A, I_{B1} = -0.1 A, I_{B2} = 0.1 A$		0.15		μs
Storage time	t _{stg}	$V_{CC} = -50 \text{ V}$		0.8		μs
Fall time	t _f			0.15		μs

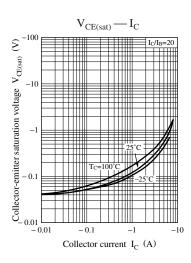
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

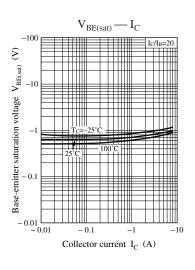
2. *: Rank classification

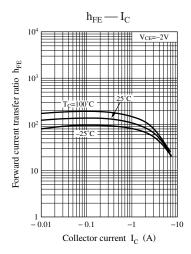
Rank	Q	Р			
h _{FE2}	90 to 180	130 to 260			

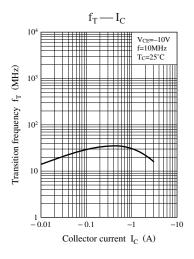


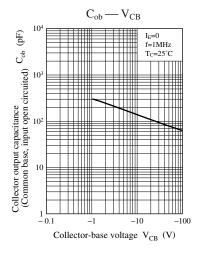


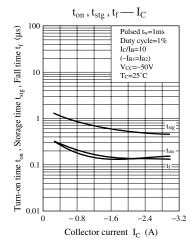


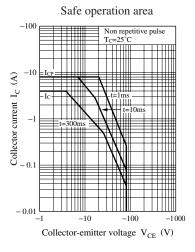


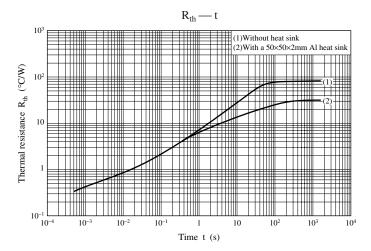












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