

2SD1263, 2SD1263A

Silicon NPN triple diffusion planar type

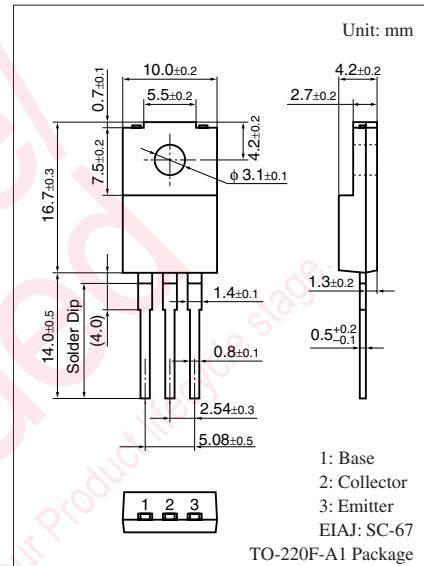
For power amplification

■ Features

- High collector-base voltage (Emitter open) V_{CBO}
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	350	V
		400	
Collector-emitter voltage (Base open)	V_{CEO}	250	V
		300	
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	0.75	A
Peak collector current	I_{CP}	1.5	A
Collector power dissipation	P_C	35	W
		2.0	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



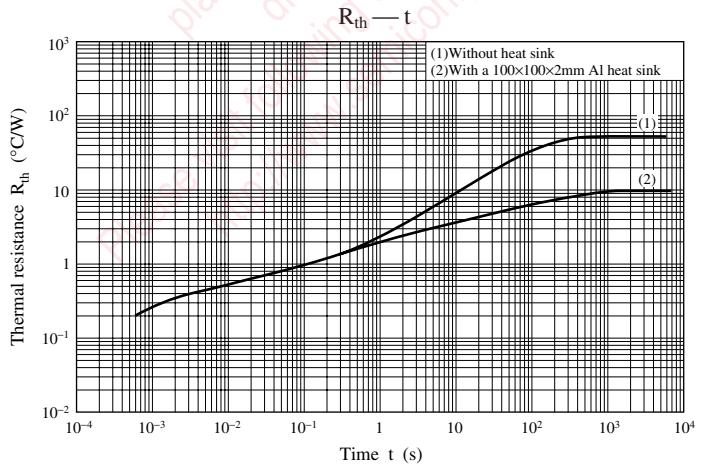
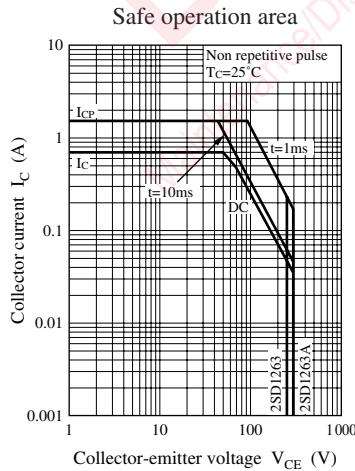
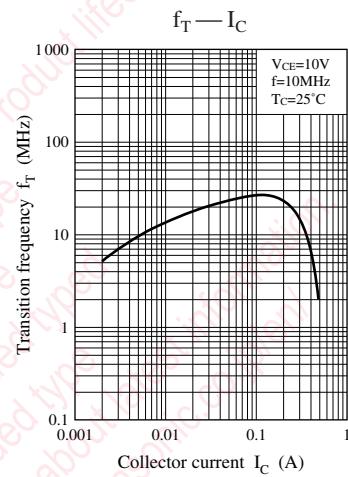
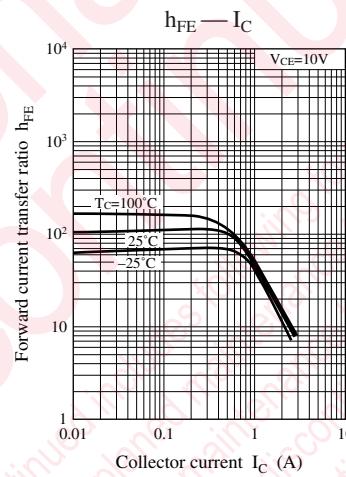
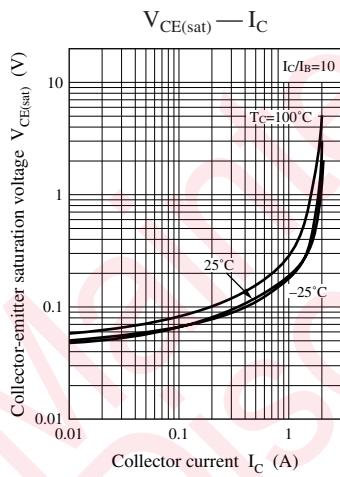
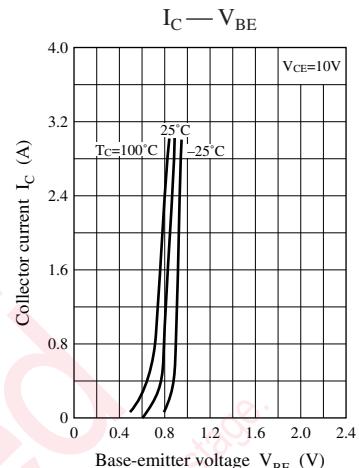
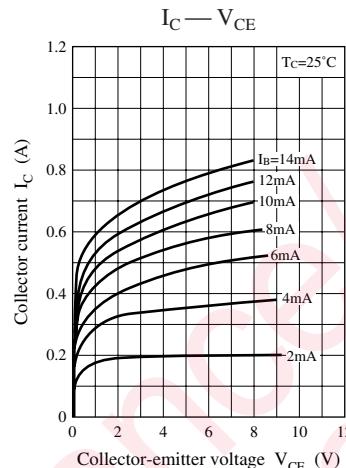
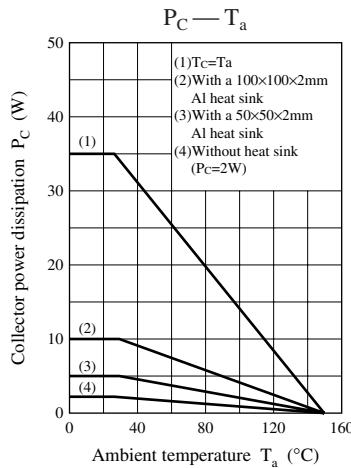
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 30 \text{ mA}, I_B = 0$	250			V
			300			
Base-emitter voltage	V_{BE}	$V_{CE} = 10 \text{ V}, I_C = 1 \text{ A}$			1.5	V
Collector-emitter cutoff current (E-B short)	I_{CES}	$V_{CE} = 350 \text{ V}, V_{BE} = 0$			1	mA
		$V_{CE} = 400 \text{ V}, V_{BE} = 0$			1	
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 150 \text{ V}, I_B = 0$			1	mA
		$V_{CE} = 200 \text{ V}, I_B = 0$			1	
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$			1	mA
Forward current transfer ratio	h_{FE1}^*	$V_{CE} = 10 \text{ V}, I_C = 0.3 \text{ A}$	40		250	—
	h_{FE2}	$V_{CE} = 10 \text{ V}, I_C = 1 \text{ A}$	10			
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C = 1 \text{ A}, I_B = 0.2 \text{ A}$			1	V
Transition frequency	f_T	$V_{CE} = 5 \text{ V}, I_C = 0.5 \text{ A}, f = 10 \text{ MHz}$		30		MHz
Turn-on time	t_{on}	$I_C = 1 \text{ A}, I_{B1} = 0.1 \text{ A}, I_{B2} = -0.1 \text{ A}$ $V_{CC} = 50 \text{ V}$		0.5		μs
Storage time	t_{stg}			2.0		μs
Fall time	t_f			0.5		μs

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

2. *: Rank classification

Rank	R	Q	P
h_{FE1}	40 to 90	70 to 150	120 to 250



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