

# 2SD1267, 2SD1267A

## Silicon NPN triple diffusion planar type

For power amplification

Complimentary to 2SB0942 and 2SB0942A

### ■ Features

- High forward current transfer ratio  $h_{FE}$  which has satisfactory linearity.
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- 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)	2SD1267	$V_{CBO}$	60	V
	2SD1267A		80	
Collector-emitter voltage (Base open)	2SD1267	$V_{CEO}$	60	V
	2SD1267A		80	
Emitter-base voltage (Collector open)	$V_{EBO}$	5	V	
Collector current	$I_C$	4	A	
Peak collector current	$I_{CP}$	8	A	
Collector power dissipation	$T_C = 25^\circ\text{C}$	$P_C$	40	W
			2.0	
Junction temperature	$T_j$	150	$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$	

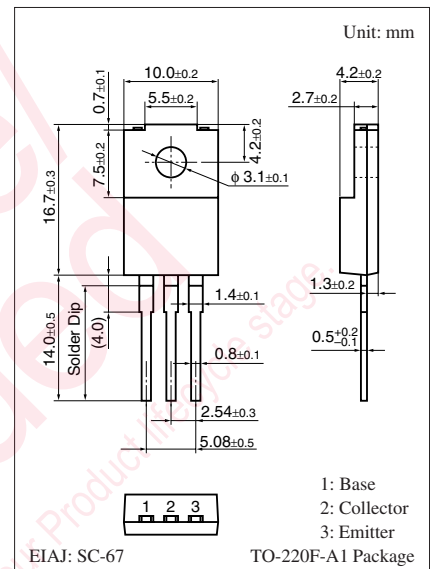
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

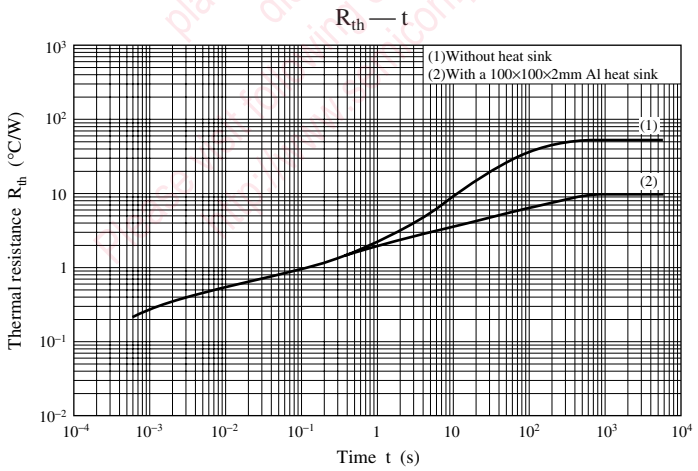
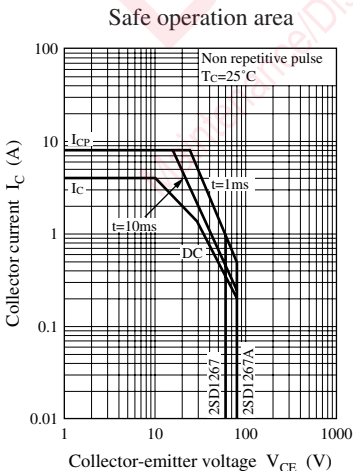
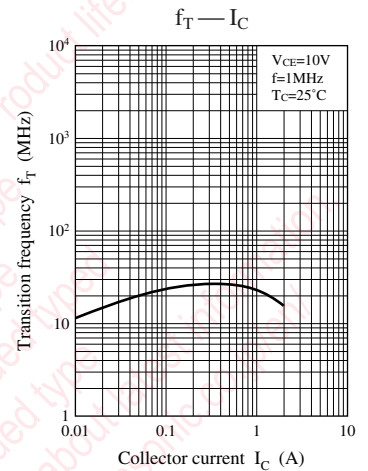
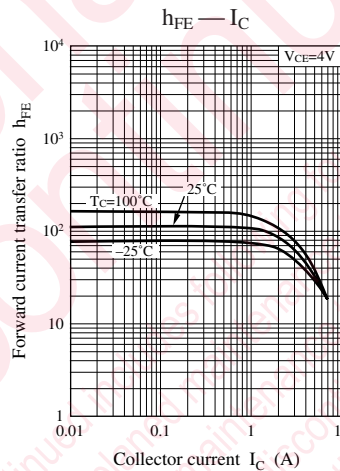
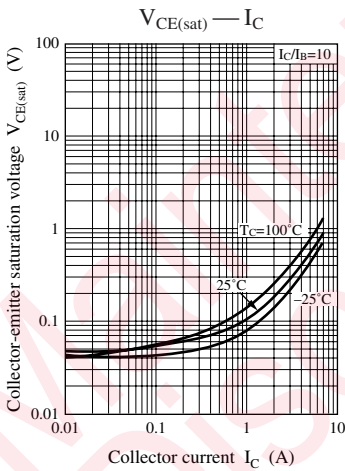
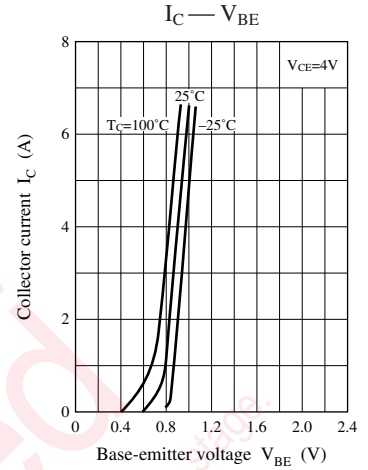
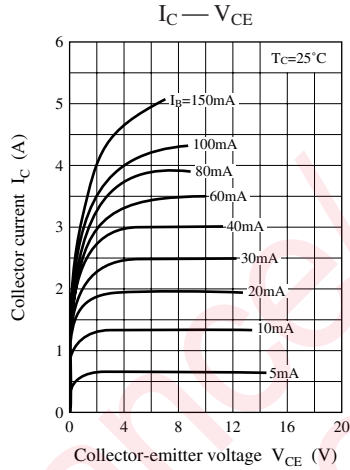
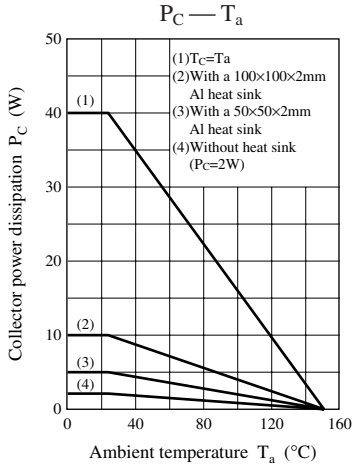
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SD1267	$I_C = 30\text{ mA}, I_B = 0$	60			V
	2SD1267A		80			
Base-emitter voltage	$V_{BE}$	$V_{CE} = 4\text{ V}, I_C = 3\text{ A}$			2	V
Collector-emitter cutoff current (E-B short)	2SD1267	$V_{CE} = 60\text{ V}, V_{BE} = 0$			400	$\mu\text{A}$
	2SD1267A		$V_{CE} = 80\text{ V}, V_{BE} = 0$		400	
Collector-emitter cutoff current (Base open)	2SD1267	$V_{CE} = 30\text{ V}, I_B = 0$			700	$\mu\text{A}$
	2SD1267A		$V_{CE} = 60\text{ V}, I_B = 0$		700	
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$			1	mA
Forward current transfer ratio	$h_{FE1}^*$	$V_{CE} = 4\text{ V}, I_C = 1\text{ A}$	40		250	—
	$h_{FE2}$	$V_{CE} = 4\text{ V}, I_C = 3\text{ A}$	15			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4\text{ A}, I_B = 0.4\text{ A}$			1.5	V
Transition frequency	$f_T$	$V_{CE} = 5\text{ V}, I_C = 0.5\text{ A}, f = 1\text{ MHz}$		20		MHz
Turn-on time	$t_{on}$	$I_C = 4\text{ A}, I_{B1} = 0.4\text{ A}, I_{B2} = -0.4\text{ mA}$		0.4		$\mu\text{s}$
Storage time	$t_{stg}$	$V_{CC} = 50\text{ V}$		1.2		$\mu\text{s}$
Fall time	$t_f$			0.5		$\mu\text{s}$

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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