

# 2SD1262, 2SD1262A

## Silicon NPN triple diffusion planar type darlington

For midium speed power switching

Complementary to 2SB0939, 2SB0939A

### ■ Features

- High forward current transfer ratio  $h_{FE}$
- High-speed switching
- N type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SD1262	60	V
	2SD1262A	80	
Collector-emitter voltage (Base open)	2SD1262	60	V
	2SD1262A	80	
Emitter-base voltage (Collector open)	$V_{EBO}$	7	V
Collector current	$I_C$	8	A
Peak collector current	$I_{CP}$	12	A
Collector power dissipation	$P_C$	45	W
		$T_a = 25^\circ\text{C}$	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

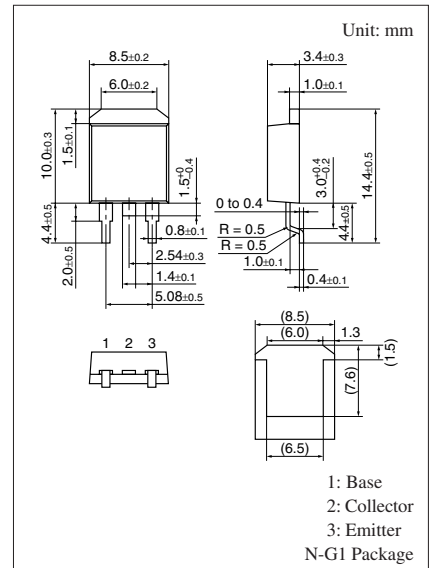
### ■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SD1262	$I_C = 30\text{ mA}, I_B = 0$	60			V
	2SD1262A		80			
Collector-base cutoff current (Emitter open)	2SD1262	$V_{CB} = 60\text{ V}, I_E = 0$			100	$\mu\text{A}$
	2SD1262A		$V_{CB} = 80\text{ V}, I_E = 0$		100	
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 7\text{ V}, I_C = 0$			2	mA
Forward current transfer ratio	$h_{FE1}^*$	$V_{CE} = 3\text{ V}, I_C = 4\text{ A}$	1000		10000	—
	$h_{FE2}$	$V_{CE} = 3\text{ V}, I_C = 8\text{ A}$	500			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4\text{ A}, I_B = 8\text{ mA}$			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 4\text{ A}, I_B = 8\text{ mA}$			2.0	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	$t_{on}$	$I_C = 4\text{ A}$		0.5		$\mu\text{s}$
Strage time	$t_{stg}$	$I_{B1} = 8\text{ mA}, I_{B2} = -8\text{ mA}$		4.0		$\mu\text{s}$
Fall time	$t_f$	$V_{CC} = 50\text{ V}$		1.0		$\mu\text{s}$

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

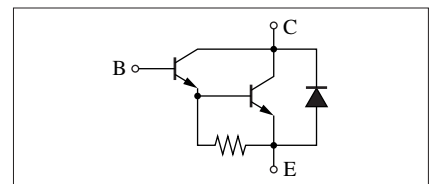
2. \*: Rank classification

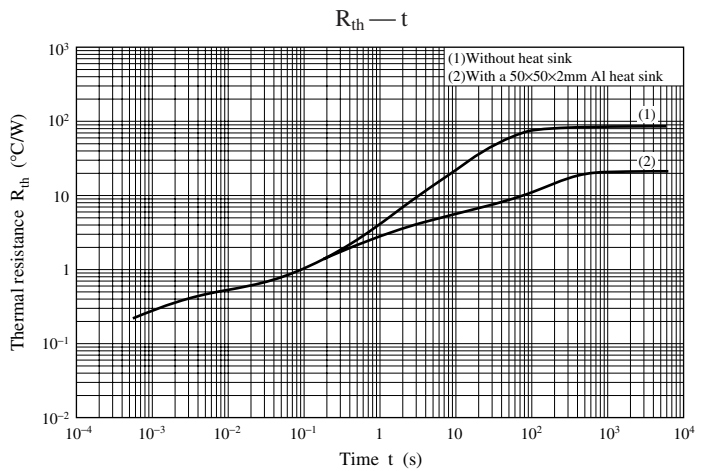
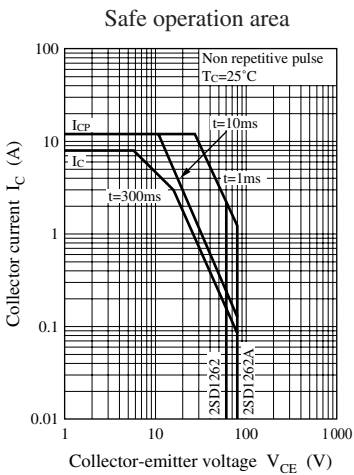
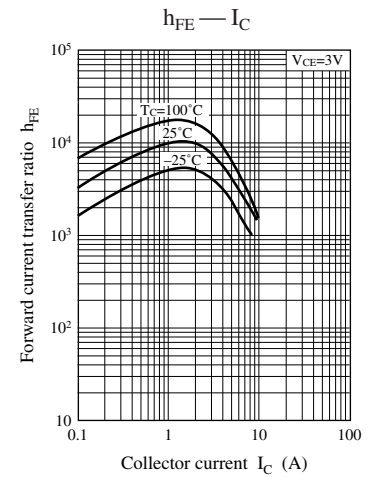
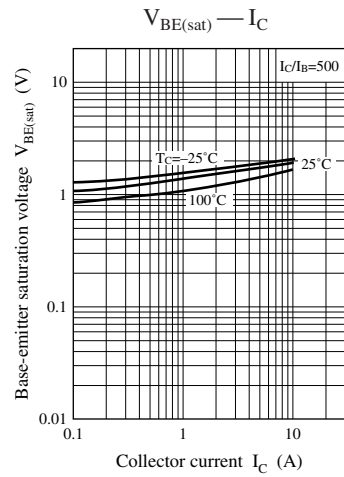
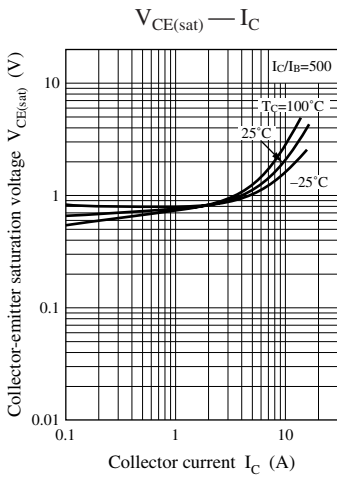
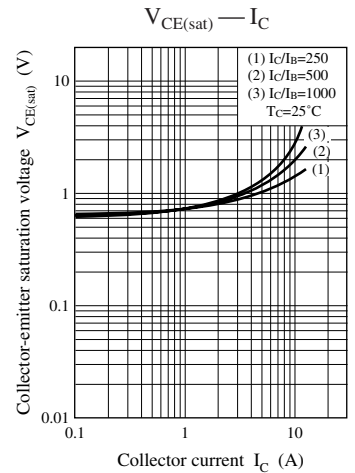
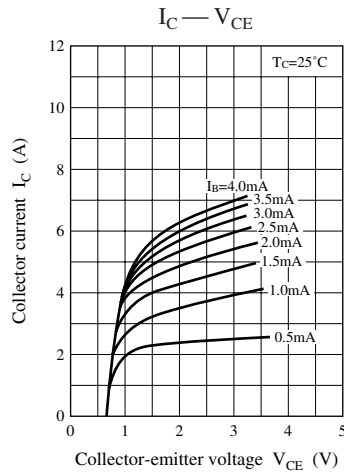
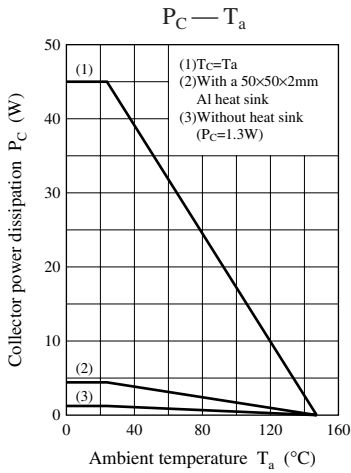
Rank	R	Q	P
$h_{FE1}$	1000 to 2500	2000 to 5000	4000 to 10000



Note) Self-supported type package is also prepared.

### Internal Connection





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