

2SD1260, 2SD1260A

Silicon NPN triple diffusion planar type darlington

For power amplification

Complementary to 2SB0937, 2SB0937A

■ 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)	2SD1260	V_{CBO}	60	V
	2SD1260A		80	
Collector-emitter voltage (Base open)	2SD1260	V_{CEO}	60	V
	2SD1260A		80	
Emitter-base voltage (Collector open)	V_{EBO}	5	V	
Collector current	I_C	2	A	
Peak collector current	I_{CP}	4	A	
Collector power dissipation	$T_a = 25^\circ\text{C}$	P_C	35	W
			1.3	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

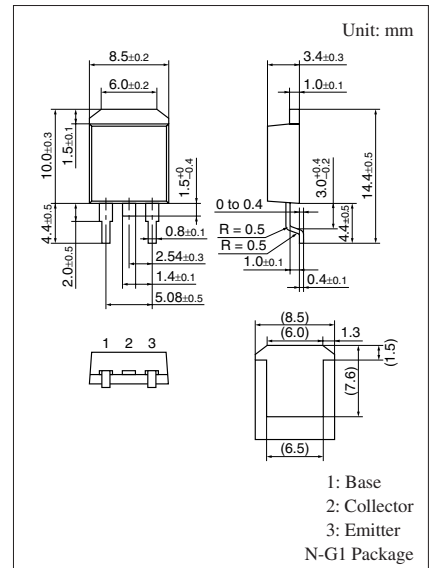
■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SD1260	$I_C = 30 \text{ mA}, I_B = 0$	60			V
	2SD1260A		80			
Base-emitter voltage	V_{BE}	$V_{CE} = 4 \text{ V}, I_C = 2 \text{ A}$			2.8	V
Collector-base cutoff current (Emitter open)	2SD1260	$V_{CB} = 60 \text{ V}, I_E = 0$			1	mA
	2SD1260A		$V_{CB} = 80 \text{ V}, I_E = 0$		1	
Collector-emitter cutoff current (Base open)	2SD1260	$V_{CE} = 30 \text{ V}, I_B = 0$			2	mA
	2SD1260A		$V_{CE} = 40 \text{ V}, I_B = 0$		2	
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$			2	mA
Forward current transfer ratio	h_{FE1}	$V_{CE} = 4 \text{ V}, I_C = 1 \text{ A}$	1000			—
	h_{FE2}^*	$V_{CE} = 4 \text{ V}, I_C = 2 \text{ A}$	1000		10000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2 \text{ A}, I_B = 8 \text{ mA}$			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}	$I_C = 2 \text{ A}$		0.5		μs
Storage time	t_{stg}	$I_{B1} = 8 \text{ mA}, I_{B2} = -8 \text{ mA}$		4.0		μs
Fall time	t_f	$V_{CC} = 50 \text{ V}$		1.0		μs

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

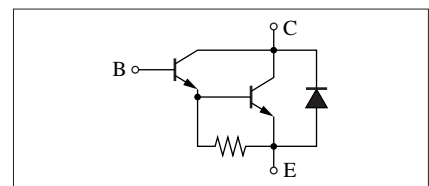
2. *: Rank classification

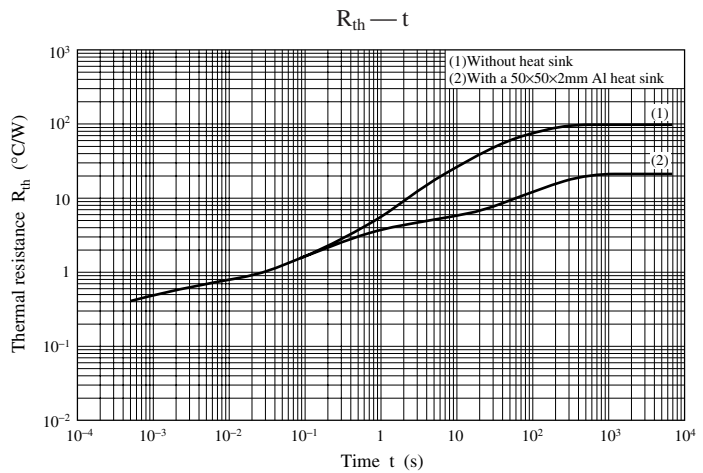
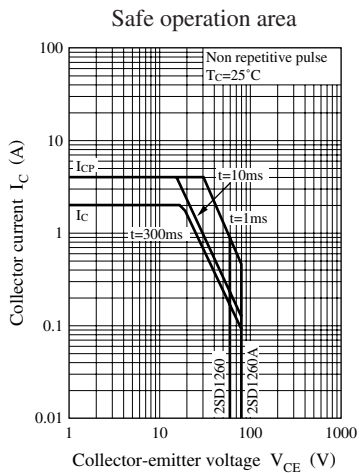
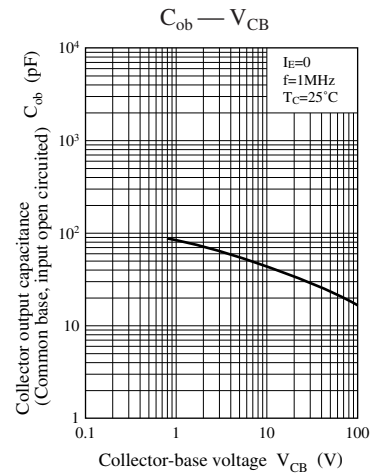
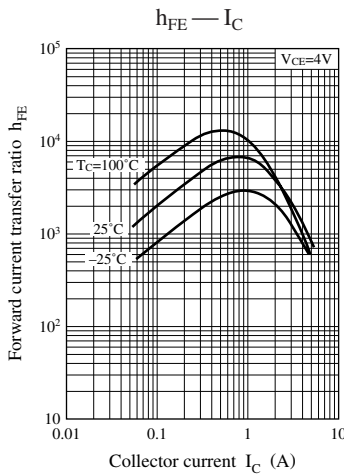
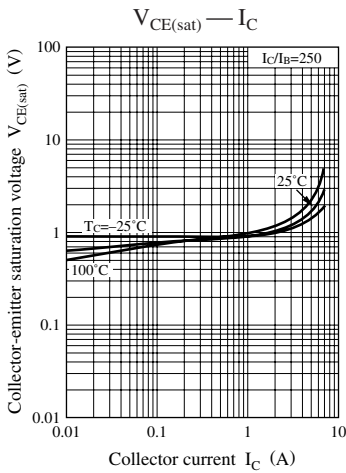
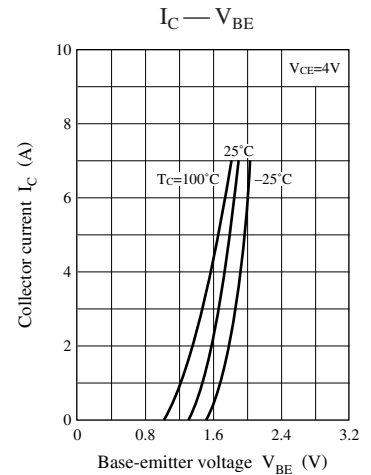
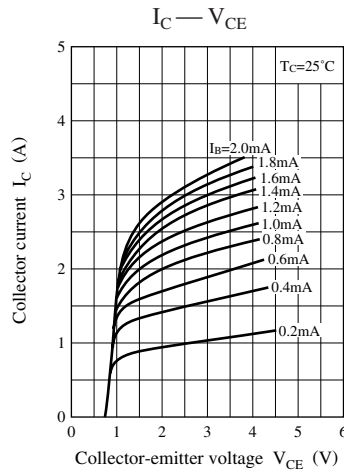
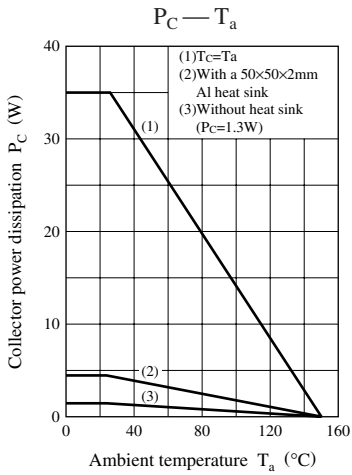
Rank	R	Q	P
h_{FE2}	1000 to 2500	2000 to 5000	4000 to 10000



Note) Self-supported type package is also prepared.

Internal Connection





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