

# 2SD1274A, 2SD1274B

## Silicon NPN triple diffusion planar type

For power amplification

### ■ Features

- High collector to base voltage  $V_{CBO}$
- High-speed switching
- Full-pack package which can be installed to the heat sink with one screw

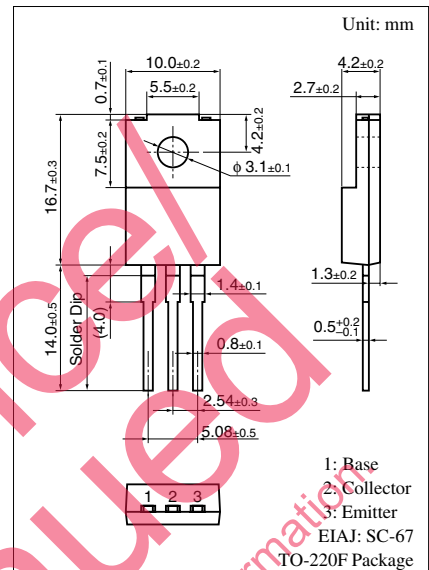
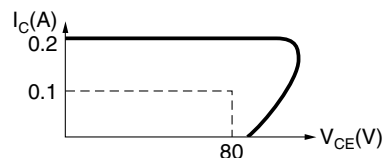
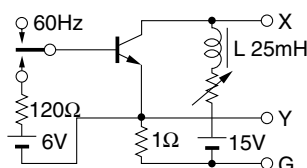
### ■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

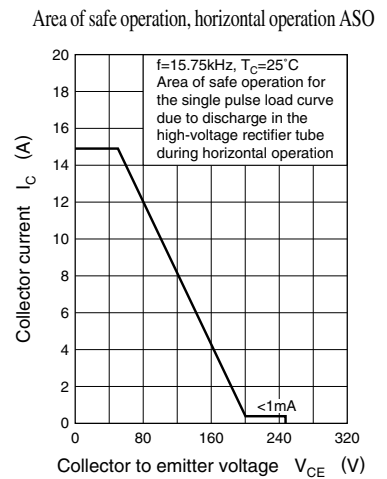
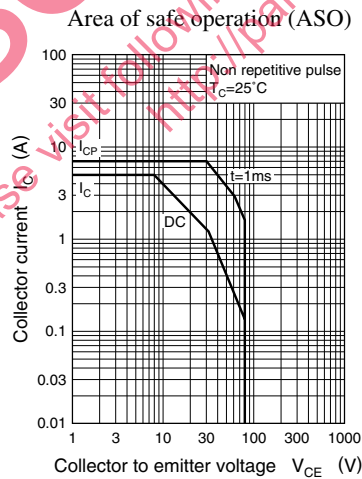
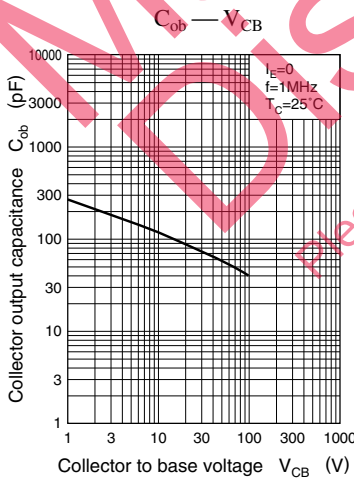
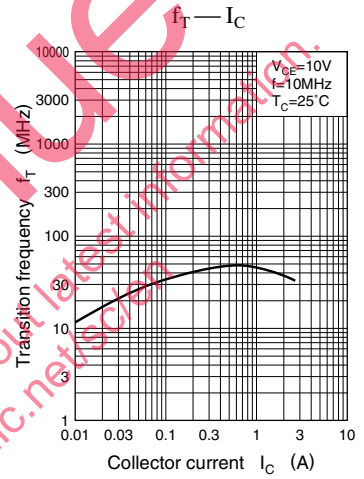
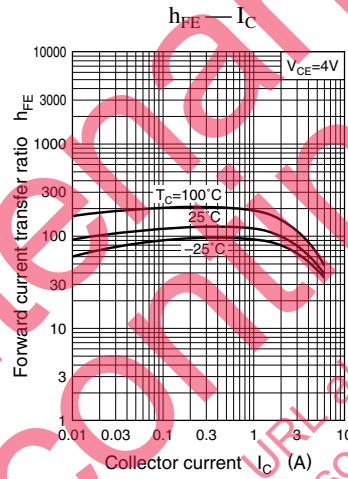
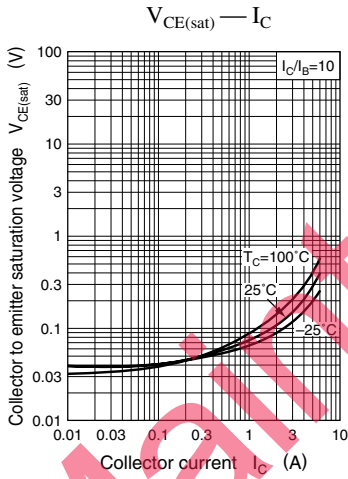
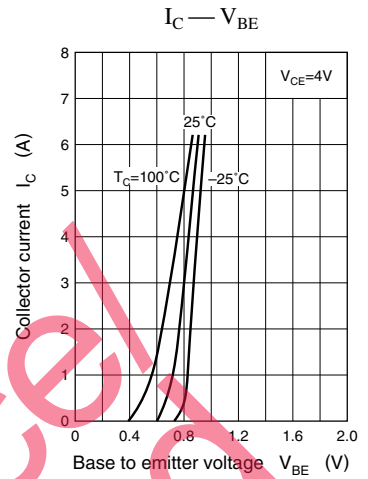
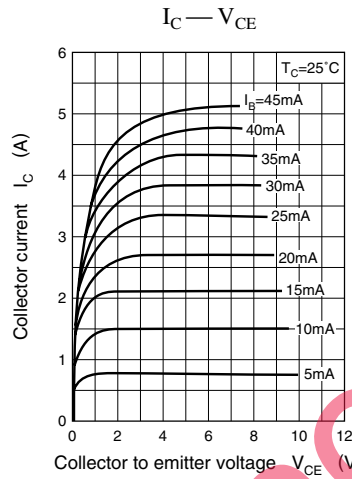
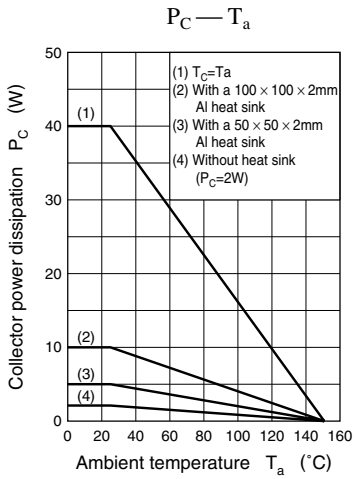
Parameter	Symbol	Rating	Unit
Collector to base voltage	2SD1274A	200	V
	2SD1274B	250	
Collector to emitter voltage	2SD1274A	200	V
	2SD1274B	250	
Collector to emitter voltage	$V_{CEO}$	80	V
Emitter to base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	5	A
Collector power dissipation	$T_C = 25^\circ\text{C}$	40	W
	$T_a = 25^\circ\text{C}$	2	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

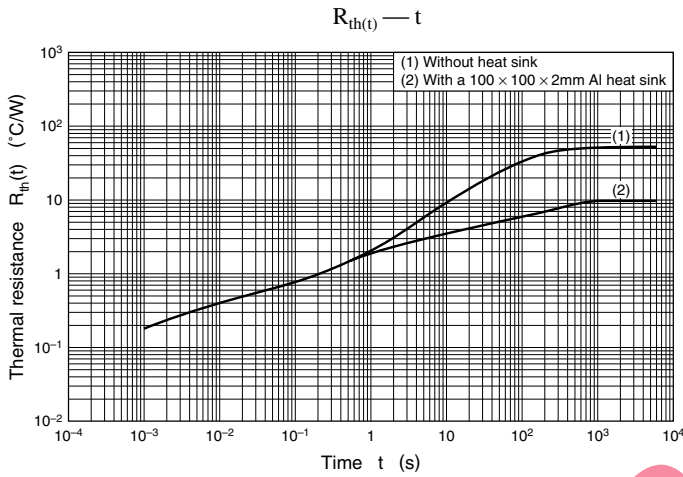
### ■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	2SD1274A	$V_{CB} = 200\text{ V}, I_E = 0$			1	mA
	2SD1274B	$V_{CB} = 250\text{ V}, I_E = 0$			1	
Collector to emitter voltage*	$V_{CEO(sus)}$	$I_C = 0.2\text{ A}, L = 25\text{ mH}$	80			V
Emitter to base voltage	$V_{EBO}$	$I_E = 1\text{ mA}, I_C = 0$	6			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 4\text{ V}, I_C = 5\text{ A}$	14			
Base to emitter voltage	$V_{BE}$	$V_{CE} = 4\text{ V}, I_C = 5\text{ A}$			1.5	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 5\text{ A}, I_B = 1\text{ A}$			1.6	V
Transition frequency	$f_T$	$V_{CE} = 10\text{ V}, I_C = 0.5\text{ A}, f = 10\text{ MHz}$		40		MHz
Fall time	$t_f$	$I_C = 5\text{ A}, I_{B1} = 0.8\text{ A}, V_{EB} = -5\text{ V}$			1	$\mu\text{s}$

Note) \*:  $V_{CEO(sus)}$  Test circuit







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