

# 2SD1273, 2SD1273A

## Silicon NPN triple diffusion planar type

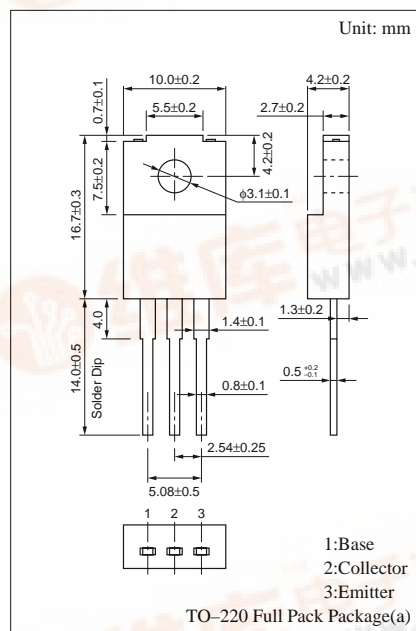
For power amplification with high forward current transfer ratio  
Complementary to 2SB1299

## ■ Features

- High forward current transfer ratio  $h_{FE}$
- Satisfactory linearity of forward current transfer ratio  $h_{FE}$
- Full-pack package which can be installed to the heat sink with one screw

■ Absolute Maximum Ratings (T<sub>C</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SD1273	$V_{CBO}$	80	V
	2SD1273A		100	
Collector to emitter voltage	2SD1273	$V_{CEO}$	60	V
	2SD1273A		80	
Emitter to base voltage		$V_{EBO}$	6	V
Peak collector current		$I_{CP}$	6	A
Collector current		$I_C$	3	A
Base current		$I_B$	1	A
Collector power dissipation	$T_C=25^{\circ}\text{C}$	$P_C$	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<sub>C</sub>=25°C)

Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	2SD1273	$I_{CBO}$	$V_{CB} = 80V, I_E = 0$			100	$\mu A$
	2SD1273A		$V_{CB} = 100V, I_E = 0$			100	
Collector cutoff current		$I_{CEO}$	$V_{CE} = 40V, I_B = 0$			100	$\mu A$
Emitter cutoff current		$I_{EBO}$	$V_{CB} = 6V, I_C = 0$			100	$\mu A$
Collector to emitter voltage	2SD1273	$V_{CEO}$	$I_C = 25mA, I_B = 0$	60			V
	2SD1273A			80			
Forward current transfer ratio		$h_{FE}^*$	$V_{CE} = 4V, I_C = 0.5A$	500		2500	
Collector to emitter saturation voltage		$V_{CE(sat)}$	$I_C = 2A, I_B = 0.05A$			1	V
Transition frequency		$f_T$	$V_{CE} = 12V, I_C = 0.2A, f = 10MHz$		50		MHz

### \*h<sub>FF</sub> Rank classification

Rank	Q	P	O
500 to 1000	800 to 1500	1200 to 2500	

Note: Ordering can be made by the common rank (PQ rank  $h_{FF} = 500$  to 1500) in the rank classification.



