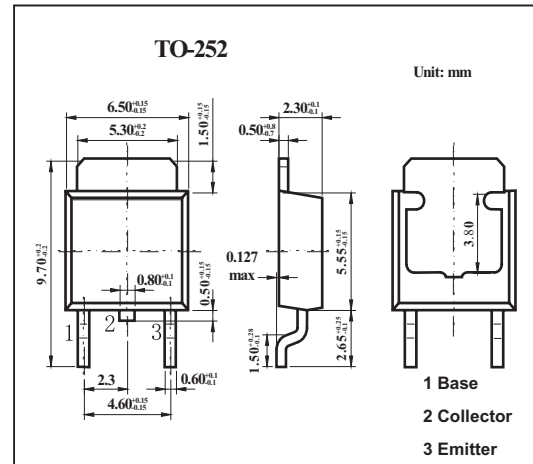


Silicon NPN Triple Diffusion Planar Type

2SD1259;2SD1259A

■ Features

- High forward current transfer ratio hFE.
- Satisfactory linearity of forward current transfer ratio hFE.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	2SD1259	80	V
	2SD1259A	100	V
Collector-emitter voltage	2SD1259	60	V
	2SD1259A	80	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	3	A
Peak collector current	I_{CP}	6	A
Base current	I_B	1	A
Collector power dissipation $T_a = 25^\circ\text{C}$	P_C	1.3	W
		40	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter voltage	2SD1259	$I_C = 25\text{ mA}, I_B = 0$	60			V
	2SD1259A		80			V
Collector-base cutoff current	2SD1259	$V_{CB} = 80\text{ V}, I_E = 0$			100	μA
	2SD1259A	$V_{CB} = 100\text{ V}, I_E = 0$			100	μA
Collector-emitter cutoff current	I_{CEO}	$V_{CE} = 40\text{ V}, I_B = 0$			100	μA
Emitter-base cutoff current	I_{EBO}	$V_{EB} = 6\text{ V}, I_C = 0$			100	μA
Forward current transfer ratio	hFE	$V_{CE} = 4\text{ V}, I_C = 0.5\text{ A}$	500		2500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 0.05\text{ A}$			1.0	V
Transition frequency	f_T	$V_{CE} = 12\text{ V}, I_C = 0.2\text{ A}, f = 10\text{ MHz}$		50		MHz

■ hFE Classification

Rank	Q	P	O
hFE	500~1000	800~1500	1200~2500