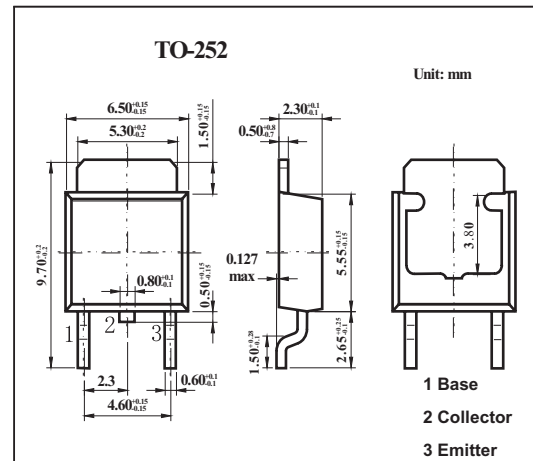


Silicon NPN Triple Diffusion Planar Type

2SD1249, 2SD1249A

■ Features

- High collector-base voltage (Emitter open) V_{CB0}

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CB0}	350	V
		400	V
Collector-emitter voltage (Base open)	V_{CEO}	250	V
		300	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	0.75	A
Peak collector current	I_{CP}	1.5	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	$^\circ\text{C}$

2SD1249, 2SD1249A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V _{CEO}	I _C = 30 mA, I _B = 0	250			V
			300			V
Collector-emitter cutoff current (E-B short)	I _{CES}	V _{CE} = 350 V, V _{BE} = 0			1	mA
		V _{CE} = 400 V, V _{BE} = 0			1	mA
Collector-emitter cutoff current (Base open)	I _{CEO}	V _{CE} = 150 V, I _B = 0			1	mA
		V _{CE} = 200 V, I _B = 0			1	mA
Emitter-base cutoff current (Collector open)	I _{EBO}	V _{EB} = 5 V, I _C = 0			1	mA
Forward current transfer ratio	h _{FE}	V _{CE} = 10 V, I _C = 0.3 A	40		250	
		V _{CE} = 10 V, I _C = 1 A	10			
Base-emitter voltage	V _{BE}	V _{CE} = 10 V, I _C = 1 A			1.5	V
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 1 A, I _B = 0.2 A			1.0	V
Transition frequency	f _T	V _{CE} = 10 V, I _C = 0.2 A, f = 10 MHz		30		MHz
Turn-on time	t _{on}	I _C = 1 A		0.5		μs
Storage time	t _{stg}	I _{B1} = 0.1 A, I _{B2} = ? 0.1 A		2.0		μs
Fall time	t _f	V _{CC} = 50 V		0.5		μs

■ hFE Classification

Rank	R	Q	P
hFE	40 to 90	70 to 150	120 to 250