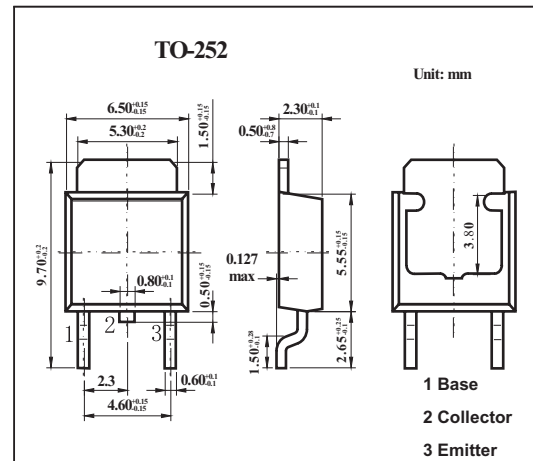


Silicon PNP Triple Diffused Type

2SB1667

■ Features

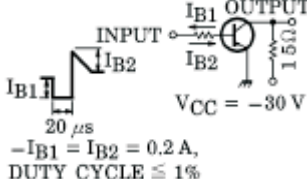
- Low collector saturation voltage.

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage	V_{CB0}	-60	V	
Collector-emitter voltage	V_{CEO}	-60	V	
Emitter-base voltage	V_{EBO}	-7	V	
Collector current	I_C	-3	A	
Base current	I_B	-0.5	A	
Collector power dissipation	P_C	$T_a = 25^\circ\text{C}$	1.5	W
		$T_C = 25^\circ\text{C}$	25	W
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$	

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cut-off current	ICBO	V _{CB} = -60 V, I _E = 0			-100	μA	
Emitter cut-off current	IEBO	V _{EB} = -7 V, I _C = 0			-100	μA	
Collector-emitter breakdown voltage	V(BR)CEO	I _C = -50mA, I _B = 0	-60			V	
DC current gain	hFE	V _{CE} = -5 V, I _C = -0.5 A	60		300		
		V _{CE} = -5 V, I _C = -3 A	20				
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -3 A, I _B = -0.3 A		-0.5	-1.7	V	
Base-emitter voltage	V _{BE}	V _{CE} = -5A, I _C = -0.5 A		-0.7	-1.0	V	
Transition frequency	f _T	V _{CE} = -5V, I _C = -0.5 A		9		MHz	
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1 MHz		150		pF	
Turn-on time	t _{on}	 <p> I_{B1} INPUT I_{B2} OUTPUT $V_{C1} = -30 V$ $20 \mu s$ $-I_{B1} = I_{B2} = 0.2 A$ DUTY CYCLE $\leq 1\%$ </p>		0.4		μs	
Storage time	t _{stg}				1.7		μs
Fall time	t _f				0.5		μs

■ hFE Classification

Rank	O	Y
hFE	60~120	100~200