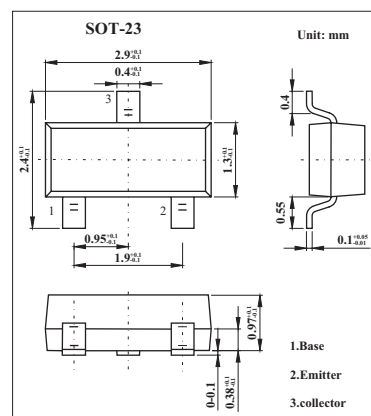


NPN General Purpose Amplifier

BSS64

■ Features

- NPN general purpose amplifier

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

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V_{CE0}	80	V
Collector-base voltage	V_{CBO}	120	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	200	mA
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$
Total device dissipation Derate above 25°C	P_D	350 2.8	mW mW/ $^\circ\text{C}$
Thermal resistance, junction to ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 4.0\text{ mA}, I_B = 0$	80			V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\ \mu\text{A}, I_E = 0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\ \mu\text{A}, I_C = 0$	5			V
Collector-cutoff current	I_{CBO}	$V_{CB} = 90\text{ V}, I_E = 0$			0.1	μA
		$V_{CB} = 90\text{ V}, I_E = 0, T_A = 150^\circ\text{C}$			50	μA
Emitter-base cut-off current	I_{EBO}	$V_{EB} = 5.0\text{ V}, I_C = 0$			200	nA
DC current gain	h_{FE}	$I_C = 10\text{ mA}, V_{CE} = 1.0\text{ V}$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4.0\text{ mA}, I_B = 400\ \mu\text{A}$			0.15	V
		$I_C = 50\text{ mA}, I_B = 15\text{ mA}$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 4.0\text{ mA}, I_B = 400\ \mu\text{A}$			1.2	V
Current gain - bandwidth product	f_T	$I_C = 4.0\text{ mA}, V_{CE} = 10, f = 35\text{ MHz}$	60			MHz
Output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, f = 1.0\text{ MHz}$			5	pF

■ Marking

Marking	U3
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