

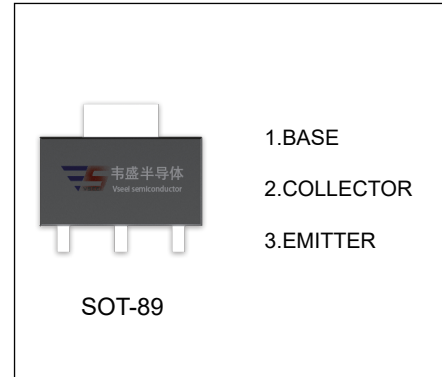
BST39,BST40 TRANSISTOR (NPN)

FEATURES

- Low Current
- High Voltage

APPLICATIONS

- General Purpose Switching and Amplification


MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter		Value	Unit
V _{CB0}	Collector-Base Voltage	BST39	400	V
		BST40	300	
V _{CEO}	Collector-Emitter Voltage	BST39	350	V
		BST40	250	
V _{EBO}	Emitter-Base Voltage		5	V
I _C	Collector Current		100	mA
P _C	Collector Power Dissipation		500	mW
R _{θJA}	Thermal Resistance From Junction To Ambient		250	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range		-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	BST39	400		V
			BST40	300		
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	BST39	350		V
			BST40	250		
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =300V, I _E =0			20	nA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			100	nA
DC current gain	h _{FE}	V _{CE} =10V, I _C =20mA		40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =50mA, I _B =4mA			0.5	V
Transition frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz	70			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			2	pF