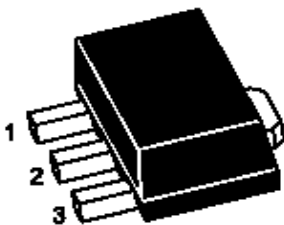


## NPN SILICON EPITAXIAL PLANAR TRANSISTOR

**BCX56**  
**SOT-89**  
**Plastic Package**



1.Base 2.Collector 3.Emitter

### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ )

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	$V_{CBO}$	100	V
Collector Emitter Voltage	$V_{CEO}$	80	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current Continuous	$I_C$	1	A
Peak Collector Current	$I_{CM}$	1.5	A
Total Power Dissipation at $T_c=25^{\circ}\text{C}$	$P_{tot}$	1	W
Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to +150	$^{\circ}\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_c=25^{\circ}\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1.0\text{mA}$ , $I_B=0$	80			V
Collector Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$	100			V
Emitter Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$	5			V
Collector Base Cut Off Current	$I_{CBO}$	$V_{CB}=30\text{V}$			100	nA
Emitter Base Cut Off Current	$I_{EBO}$	$V_{EB}=5\text{V}$			100	nA
DC Current Gain	BCX56.10 BCX56.16	$h_{FE}$	$I_C=5\text{mA}$ , $V_{CE}=2\text{V}$	25		
			$I_C=150\text{mA}$ , $V_{CE}=2\text{V}$	63	160	
			$I_C=500\text{mA}$ , $V_{CE}=2\text{V}$	100	250	
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$	$I_C=500\text{mA}$ , $I_B=50\text{mA}$			0.5	V
Base Emitter On Voltage	$V_{BE(on)}$	$I_C=500\text{mA}$ , $V_{CE}=2\text{V}$			1	V
Transition Frequency	$f_T$	$V_{CE}=5\text{V}$ , $I_C=10\text{mA}$ , $f=100\text{MHz}$		130		mHz





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