

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

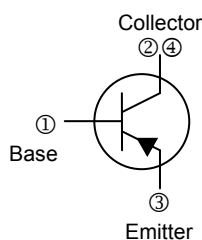
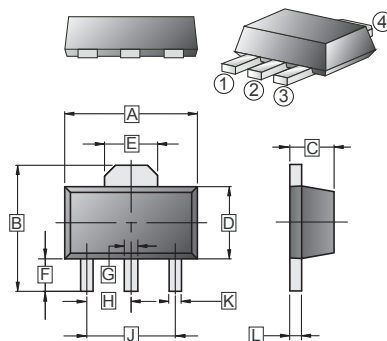
FEATURE

- Excellent h_{FE} Linearity

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	7 inch

SOT-89



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50	TYP
C	1.40	1.60	J	3.00	TYP
D	2.25	2.60	K	0.32	0.52
E	1.50	1.85	L	0.35	0.44
F	0.89	1.20			

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CB0}	-400	V
Collector to Emitter Voltage	V_{CE0}	-400	V
Emitter to Base Voltage	V_{EB0}	-5	V
Collector Current - Continuous	I_C	-200	mA
Collector Power Dissipation	P_C	500	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CB0}$	-400	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CE0}$	-400	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EB0}$	-5	-	-	V	$I_E = -100\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CB0}	-	-	-0.1	μA	$V_{CB} = -400\text{V}, I_E = 0$
Collector Cut-Off Current	I_{CE0}	-	-	-5	μA	$V_{CE} = -400\text{V}, I_B = 0$
Emitter Cut-Off Current	I_{EB0}	-	-	-0.1	μA	$V_{EB} = -4\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	80	-	300		$V_{CE} = -10\text{V}, I_C = -10\text{mA}$
	$h_{FE(2)}$	70	-	-		$V_{CE} = -10\text{V}, I_C = -1\text{mA}$
	$h_{FE(3)}$	60	-	-		$V_{CE} = -10\text{V}, I_C = -100\text{mA}$
	$h_{FE(4)}$	80	-	-		$V_{CE} = -10\text{V}, I_C = -50\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	-	-	-0.2	V	$I_C = -10\text{mA}, I_B = -1\text{mA}$
	$V_{CE(sat)(2)}$	-	-	-0.3	V	$I_C = -50\text{mA}, I_B = -5\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-0.75	V	$I_C = -10\text{mA}, I_B = -1\text{mA}$
Transition Frequency	f_T	50	-	-	MHz	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 30\text{MHz}$

CHARACTERISTIC CURVES

