

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

FEATURES

- Small Flat Package.
- Large Current Capacity.
- High DC Current Gain
- Low $V_{CE(sat)}$

APPLICATION

LF Amplifiers, Various Drivers, Muting Circuit

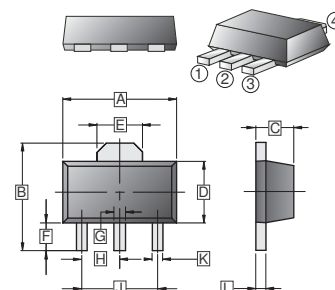
MARKING

CF

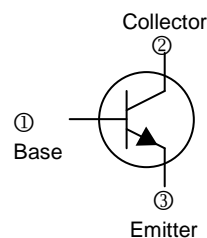
PACKAGE INFORMATION

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	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.20			



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	15	V
Continuous Collector Current	I_C	1.2	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C} / \text{W}$
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 condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=10\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	15	-	-	V	$I_E=10\mu\text{A}, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=20\text{V}, I_E=0$
Emitter Cut-Off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=10\text{V}, I_C=0$
DC Current Gain	h_{FE}	800	-	3200		$V_{CE}=5\text{V}, I_C=500\text{mA}$
		600	-	-		$V_{CE}=5\text{V}, I_C=10\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=500\text{mA}, I_B=10\text{mA}$
Base to emitter Voltage	V_{BE}	-	-	1.2	V	$I_C=500\text{mA}, I_B=10\text{mA}$
Transition Frequency	f_T	-	200	-	MHz	$V_{CE}=10\text{V}, I_C=50\text{mA}$
Collector Output Capacitance	C_{ob}	-	17	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$

CHARACTERISTIC CURVES

