

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

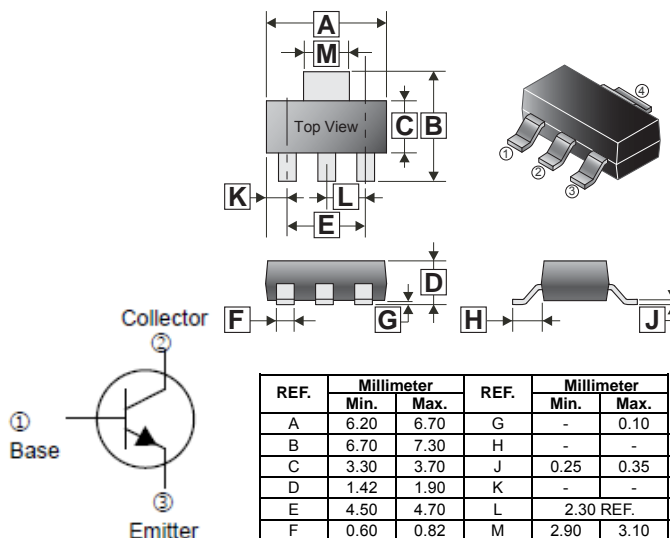
FEATURES

- For AF driver and output stages
- Power switching applications

SOT-223

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-223	2.5K	13 inch



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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	0.2	A
Collector Current -Pulsed	I_{CM}	0.5	A
Collector Power Dissipation	P_C	1	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.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	300	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	300	-	V	$I_C=1\text{mA}, I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	6	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector cut-off current	I_{CBO}	-	0.1	μA	$V_{CB}=200\text{V}, I_E=0$
Emitter-Base Cutoff Current	I_{EBO}	-	0.1	μA	$V_{EB}=6\text{V}, I_C=0$
DC current gain	h_{FE}	25	-		$V_{CE}=10\text{V}, I_C=1\text{mA}$
		40	-		$V_{CE}=10\text{V}, I_C=10\text{mA}$
		40	-		$V_{CE}=10\text{V}, I_C=30\text{mA}$
Collector-emitter saturation voltage ¹	$V_{CE(sat)}$	-	0.5	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	0.9	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Transition frequency	f_T	50	-	MHz	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$
Collector output capacitance	C_{ob}	-	3	pF	$V_{CB}=20\text{V}, I_E=0, f=1\text{MHz}$