

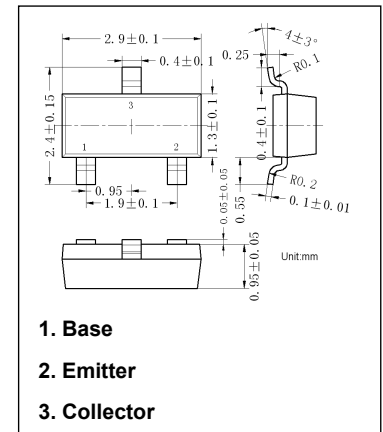
SOT-23 Plastic-Encapsulate Transistors

A733 PNP Transistors

Features

- Collector-Base Voltage
- Complement to C945

Marking: CS



Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	-60	V
V_{CEO}	Collector Emitter Voltage	-50	V
V_{EBO}	Emitter Base Voltage	-5	V
I_c	Collector Current	-150	mA
P_c	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	- 55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_c=-5\mu\text{A}, I_E=0$	-60			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_c=-1\text{mA}, I_B=0$	-50			V
$V_{(BR)CBO}$	Emitter-base breakdown voltage	$I_E=-50\mu\text{A}, I_C=0$	-5			V
I_{CBO}	Collector cut-off current	$V_{CB}=-60\text{V}, I_E=0$			-0.1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5\text{V}, I_C=0$			-0.1	μA
$h_{FE(1)}$	DC current gain	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	120			
$h_{FE(2)}$		$V_{CE}=-6\text{V}, I_C=-1\text{mA}$	300		400	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=-100\text{mA}, I_B=-10\text{mA}$		-0.18	-0.3	V
$V_{BE(on)}$	Base-emitter voltage	$V_{CE}=-6\text{V}, I_C=-1.0\text{mA}$	-0.58	-0.62	-0.68	V
f_r	Transition frequency	$V_{CE}=-6\text{V}, I_C=-10\text{mA}$	50			MHz
C_{ob}	Collector output capacitance	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		4.5	7	pF
NF	Noise figure	$V_{CE}=-6\text{V}, I_C=-0.3\text{mA}, R_g=10\text{k}\Omega, f=100\text{Hz}$		6	20	dB

Typical Characteristics

