

TRANSISTOR (NPN)

FEATURES

- For high-frequency Amplification Complementary to 2SA1532
- Optimum for RF amplification of FM/AM radios
- High transition frequency f_T

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	30	mA
P_C	Collector Power Dissipation	150	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$

SOT-323

- 1.BASE
- 2.EMITTER
- 3.COLLECTOR



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=100\mu\text{A}, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=10\text{V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=10\text{V}, I_C=1\text{mA}$	70		220	
Transition frequency	f_T	$V_{CE}=10\text{V}, I_E=1\text{mA}, f=200\text{MHZ}$	150			MHZ
Common emitter reverse transfer capacitance	C_{re}	$V_{CB}=10\text{V}, I_C=1\text{mA}, f=10.7\text{MHZ}$			1.5	pF
Noise figure	NF	$V_{CB}=10\text{V}, I_C=1\text{mA}, f=5\text{MHZ}$			4	dB
Reverse transfer impedance	Z_{rb}	$V_{CB}=10\text{V}, I_C=1\text{mA}, f=2\text{MHZ}$			50	Ω

CLASSIFICATION OF $h_{FE(1)}$

Marking	VB	VC
Range	70-140	110-220



