

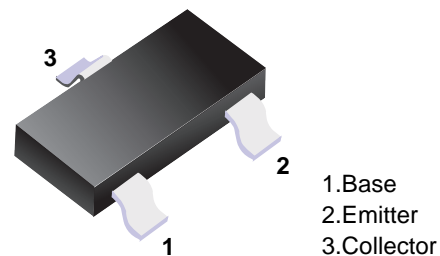
NPN RF Transistors

DESCRIPTION

- Low Noise
- High Current-Gain Bandwidth Product

APPLICATIONS

- Designed for use in VHF RF amplifier, local oscillator, mixer.



■ Simplified outline(SOT-23)

h_{FE} Classifications

Marking	T32	T33	T34
h_{FE}	60-120	90-180	120-240

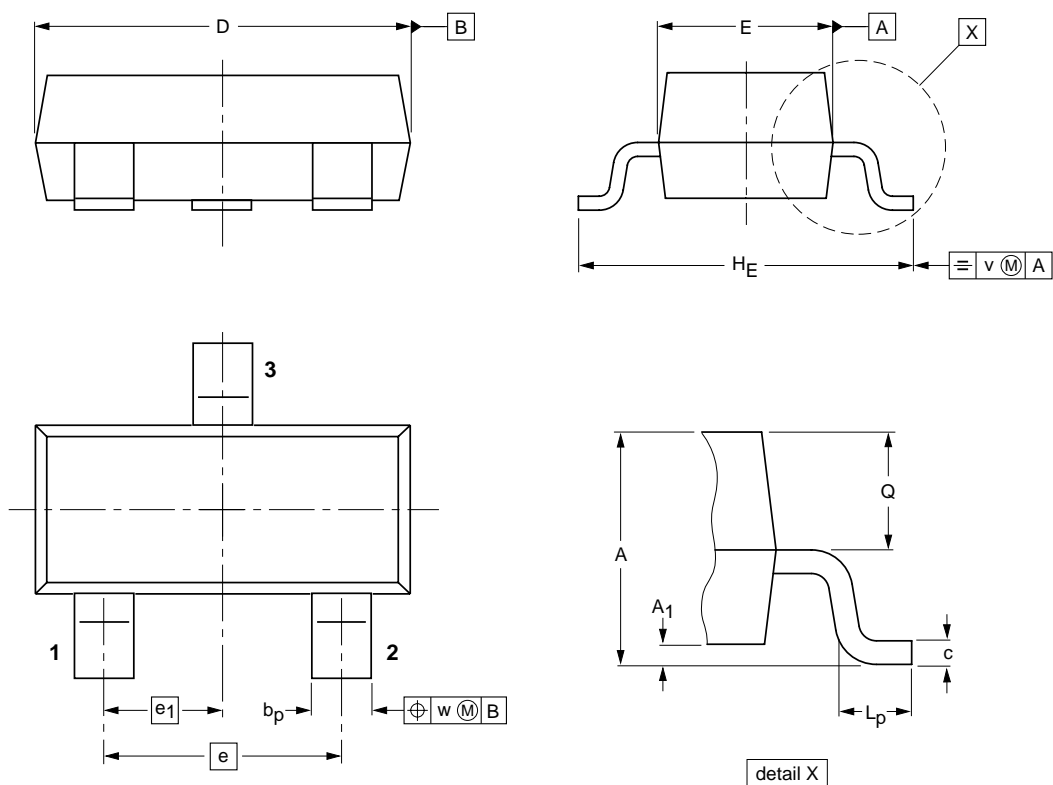
ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	0.15	W
T_J	Junction Temperature	125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~125	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}$; $I_B=1\text{mA}$			0.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=12\text{V}$; $I_E=0$			0.1	μA
h_{FE}	DC Current Gain	$I_C=5\text{mA}$; $V_{CE}=10\text{V}$	60		240	
f_T	Current-Gain—Bandwidth Product	$I_C=5\text{mA}$; $V_{CE}=10\text{V}$	800	1100		MHz
C_{OB}	Output Capacitance	$I_E=0$; $V_{CB}=10\text{V}$; $f=1.0\text{MHz}$			1.5	pF
$r_{bb'} \cdot CC$	Base Time Constant	$I_C=5\text{mA}$; $V_{CB}=10\text{V}$; $f=31.9\text{MHz}$		10	15	ps

■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1