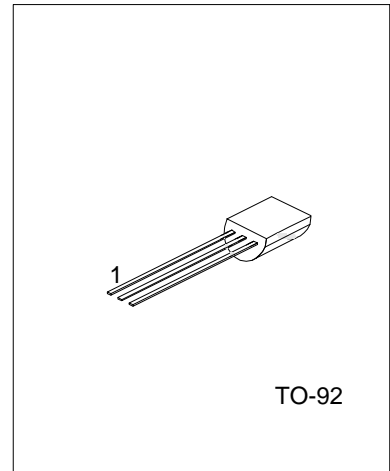




9018

NPNEPITAXIAL PLANAR TRANSISTOR

AM/FM AMPLIFIER, LOCAL OSCILLATOR OF FM/VHF TUNER



FEATURES

* High Current Gain Bandwidth Product
fT=1.1GHz (Typ)

ORDERING INFORMATION

Table with columns: Ordering Number (Lead Free, Halogen Free), Package, Pin Assignment (1, 2, 3), Packing. Rows include part numbers like 9018L-x-T92-B and their corresponding packages and packing types.

Note: Pin Assignment: E: EMITTER B: BASE C: COLLECTOR

Diagram of part number 9018L-x-T92-B with callouts for (1)Packing Type, (2)Package Type, (3)Rank, and (4)Lead Free. Includes legend for (1) B: Tape Box, T: Tape Reel, R: Tape Reel and (4) G:Halogen Free, L: Lead Free.

■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Operating Temperature	T_{OPR}	-20 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **ELECTRICAL CHARACTERISTICS** ($T_A=25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu\text{A}$, $I_E=0$	30			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$, $I_B=0$	15			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=12\text{V}$, $I_E=0$			50	nA
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=10\text{mA}$, $I_B=1\text{mA}$			0.5	V
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}$, $I_C=1\text{mA}$	28	100	198	
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}$, $I_C=5\text{mA}$	700	1100		MHz
Output Capacitance	C_{OB}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		1.3	1.7	pF

■ **CLASSIFICATION of h_{FE}**

RANK	D	E	F	G	H	I
RANGE	28-45	39-60	54-80	72-108	97-146	132-198

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