

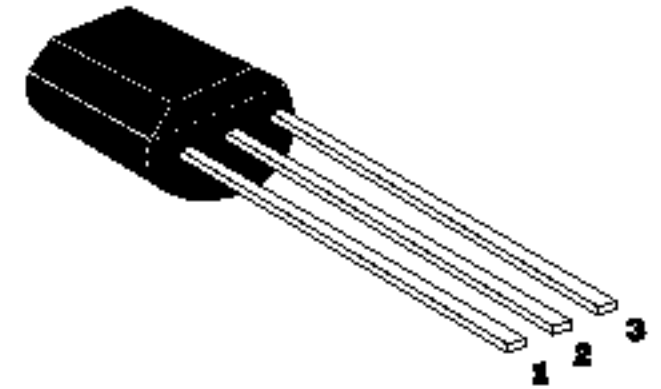


**AM /FM IF AMPLIFIER, LOCAL OSCILLATOR  
OF FM/VHF TUNER**

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- \* High Current Gain Bandwidth Product  $f_T=1100\text{MHz}$
- \* High Total Power Dissipation :  $P_c=400\text{mW}$

Package: TO-92



PIN:	1	2	3
STYLE			
NO.1	E	B	C

**ABSOLUTE MAXIMUM RATINGS at  $T_{amb}=25^{\circ}\text{C}$**

Characteristic	Symbol	Rating	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 Dissipation	$P_c$	400	mW
Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-55~150	$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS at  $T_{amb}=25^{\circ}\text{C}$**

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{cbo}$	30			V	$I_c=100\mu\text{A}$ $I_e=0$
Collector-Emitter Breakdown Voltage	$BV_{ceo}$	15			V	$I_c=1\text{mA}$ $I_b=0$
Emitter-Base Breakdown Voltage	$BV_{ebo}$	5			V	$I_e=100\mu\text{A}$ $I_c=0$
Collector Cutoff Current	$I_{cbo}$			50	nA	$V_{cb}=12\text{V}$ $I_e=0$
Emitter Cutoff Current	$I_{ebo}$			50	nA	$V_{eb}=3\text{V}$ $I_c=0$
DC Current Gain	$H_{fe}$	28	100	300		$V_{ce}=5\text{V}$ $I_c=1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{ce(sat)}$			0.5	V	$I_c=10\text{mA}$ $I_b=1\text{mA}$
Output Capacitance	$C_{ob}$		1.3	1.7	pF	$V_{cb}=10\text{V}$ $I_e=0$ $f=1\text{MHz}$
Current Gain-Bandwidth Product	$f_T$	700	1100		MHz	$V_{ce}=5\text{V}$ $I_c=5\text{mA}$

**CLASSIFICATION HFE**

Classification	D	E	F	G	H	I	J
$H_{fe}$	28-45	39-60	54-80	72-108	97-146	132-198	198-300