



# 《风光欣》技术资料

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## C1674

### NPN EPITAXIAL SILICON TRANSISTOR

TV PIF AMPLIFIER, FM TUNER RF AMPLIFIER,  
MIXER, OSCILATOR

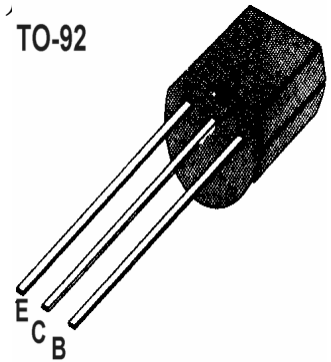
High Current-Gain Bandwidth Product  $f_T=600\text{MHz}$ (Typ)

High Power Gain  $G_{PE}=22\text{dB}$  at  $f=100\text{MHz}$ (Typ)

#### ABSOLUTE MAXIMUM RATINGS( $T_A=25$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	30	V
Collector-Emitter Voltage	$V_{CEO}$	20	V
Emitter -Base Voltage	$V_{EB0}$	4	V
Collector Current	$I_c$	20	mA
Collector Dissipation	$P_c$	250	mW
Junction Temperature	$T_J$	150	
Storage Temperature	$T_{STG}$	-55 ~150	

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#### ELECTRICAL CHARACTERISTICS( $T_A=25$ )

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_c=10\mu A, I_E=0$	30			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_c=5\text{mA}, I_B=0$	20			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E=10\mu A, I_c=0$	4			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$			0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_c=0$			0.1	$\mu A$
DC Current Gain	$H_{FE}$	$V_{CE}=6\text{V}, I_c=1\text{mA}$	40		240	
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=6\text{V}, I_c=1\text{mA}$		0.72		V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=10\text{mA}, I_B=1\text{mA}$		0.1	0.3	V
Current Gain-Bandwidth Product	$f_T$	$V_{CE}=6\text{V}, I_c=1\text{mA}$	400	600		MHz
Output Capacitance	$C_{OB f=1\text{MHz}}$	$V_{CB}=6\text{V}, I_E=0$		1.2		pF
Collector-Base Time Constant	$C_c r_{bb}$	$V_{CE}=6\text{V}, I_E=1\text{mA}$ $f=31.9\text{MHz}$		12	15	ps
Common Source Noiss Figure	NF	$V_{CE}=6\text{V}, I_E=1\text{mA}$ $R_s=50\Omega, f=100\text{MHz}$		3.0	5.0	dB
Power Gain	$C_{PE}$	$V_{CE}=6\text{V}, I_E=1\text{mA}$ $R_s=50k\Omega, f=100\text{MHz}$	18	22		dB

#### Hfe CLASSIFICATION

Classification	R	O	Y
HFE	40-80	70-140	120-240