



General Purpose Transistors 三极管

NPN Silicon (FHT2412)

FEATURES 特点

- Excellent h_{FE} Linearity h_{FE} 线性特性极好
 $h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.)$
- Low Noise 低噪声: $NF=1dB(Typ.), 10dB(Max.)$.
- Complementary to FHT1037 与 FHT1037 互补

MAXIMUM RATINGS($T_a=25$) 最大额定值

CHARACTERISTIC 特性参数	Symbol 符号	Rating 额定值	Unit 单位
Collector-Base Voltage 集电极-基极电压	V_{CBO}	60	Vdc
Collector-Emitter Voltage 集电极-发射极电压	V_{CEO}	50	Vdc
Emitter-Base Voltage 发射极-基极电压	V_{EBO}	7.0	Vdc
Collector Current—Continuous 集电极电流-连续	I_C	150	mAdc
Collector Power Dissipation 集电极耗散功率	P_C	200	mW
Junction Temperature 结温	T_j	150	
Storage Temperature Range 储存温度	T_{stg}	-55 ~ 150	

DEVICE MARKING 打标

$h_{FE}(1)$ FHT2412Q=BQ(120 ~ 270), FHT2412R=BR(180 ~ 390), FHT2412S=BS(270 ~ 560)

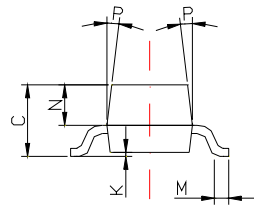
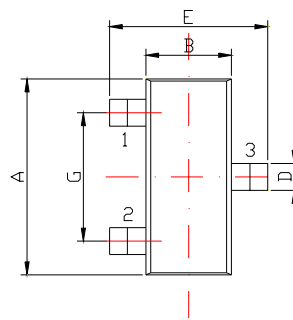
ELECTRICAL CHARACTERISTICS 电特性

($T_A=25$ unless otherwise noted 如无特殊说明, 温度为 25)

Characteristic 特性参数	Symbol 符号	Test Condition 测试条件	Min 最小值	TYP 典型	Max 最大值	Unit 单位
Collector Cutoff Current 集电极截止电流	I_{CBO}	$V_{CB}=60V, I_E=0$	—	—	0.1	μA
Emitter Cutoff Current 发射极截止电流	I_{EBO}	$V_{EB}=7V, I_C=0$	—	—	0.1	μA
Collector-Base Breakdown Voltage 集电极-基极击穿电压	$V_{(BR)CBO}$	$I_C=50\mu A$	60	—	—	V
Collector-Emitter Breakdown Voltage 集电极-发射极击穿电压	$V_{(BR)CEO}$	$I_C=1.0mA$	50	—	—	V
Emitter-Base Breakdown Voltage 发射极-基极击穿电压	$V_{(BR)EBO}$	$I_E=50\mu A$	7	—	—	V
DC Current Gain 直流电流增益	h_{FE}	$V_{CE}=6V, I_C=1mA$	120	—	560	—
Collector-Emitter Saturation Voltage 集电极-发射极饱和压降	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$	—	—	0.4	V
Transition Frequency 特征频率	f_T	$V_{CE}=12V, I_E=-2mA, f=100MHz$	—	180	—	MHz
Collector Output Capacitance 输出电容	C_{ob}	$V_{CB}=12V, I_E=0, f=1MHz$	—	2.0	3.5	pF



SOT-23 封装外形尺寸 (SOT-23 DIMENSION)



1. BASE
2. EMITTER
3. COLLECTOR

DIM	MILLIMETERS
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.40+0.30/-0.20
G	1.90±0.10
K	0.00-0.10
M	0.20 MIN
N	0.60±0.10
P	7±2°

SOT-23