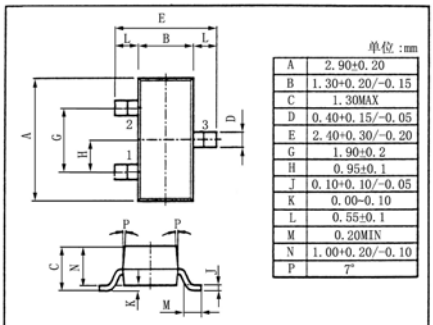
用途:用于音频放大输出,电压调节器,电源转换和继电器驱动。

Purpose: Output stage of audio amplifier, voltage regulator, DC-DC converter and relay driver.

特点:饱和压降小, h_{FE} 高且线性好/Features: Low saturation voltage, excellent h_{FE} linearity and high h_{FE}.

极限参数/Absolute maximum ratings(Ta=25℃)

参数符号 Symbol	数值 Rating	单位 Unit
V_{CBO}	-40	V
V_{CEO}	-30	V
V_{EBO}	-5	V
I_C	-3	A
I_{CP}	-7	A
P_C	0.35	W
T_j	150	℃
T_{stg}	-55～150	℃



引脚: 1:E 2:B 3:C

SOT-23

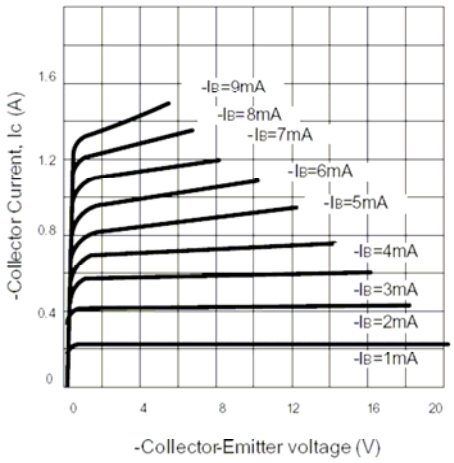
电性能参数/Electrical characteristics(Ta=25℃)

参数符号 Symbol	测试条件 Test condition		数值 Rating 最小值 Min	典型值 Typ	最大值 Max	单位 Unit
BV_{CBO}	I_C=-100μA	I_E=0	-40			V
BV_{CEO}	I_C=-1mA	I_B=0	-30			V
BV_{EBO}	I_E=-100μA	I_C=0	-5			V
I_{CBO}	V_{CB}=-30V	I_E=0			-1	μA
I_{CEO}	V_{CE}=-30V	I_B=0			-1	μA
I_{EBO}	V_{EB}=-3V	I_C=0			-1	μA
*$h_{FE(1)}$	V_{CE}=-2V	I_C=-1A	100	150	400	
$h_{FE(2)}$	V_{CE}=-2V	I_C=-20mA	30	200		
$V_{CE(sat)}$	I_C=-2A	I_B=-0.2A		-0.3	-0.5	V
$V_{BE(sat)}$	I_C=-2A	I_B=-0.2A		-1	-2	V
f_T	V_{CE}=-5V	I_C=-0.1A		80		MHz
C_{ob}	V_{CB}=-10V I_E=0	f=1MHz		45		pF

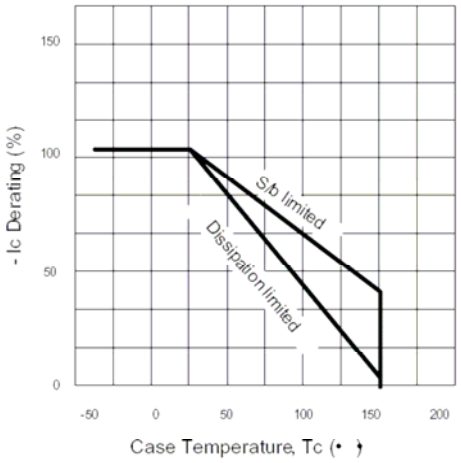
*脉冲测试: 脉宽≤300μS, 占空比≤2.0%/pulse test: pulse width≤300μS, duty cycle≤2.0%.

$h_{FE(1)}$分档 $h_{FE(1)}$Classifications	Q	P	E
$h_{FE(1)}$范围 $h_{FE(1)}$ Range	100-200	160-320	200-400
印章 Marking	H72Q	H72P	H72E

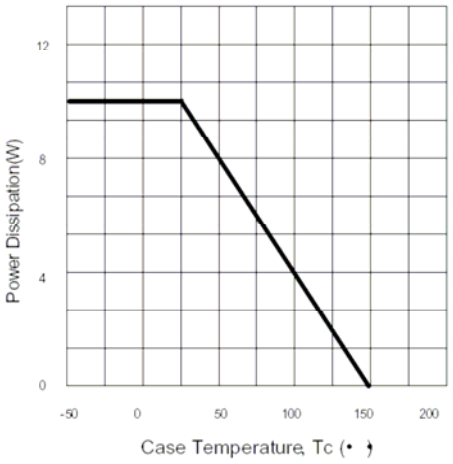
Static Characteristics



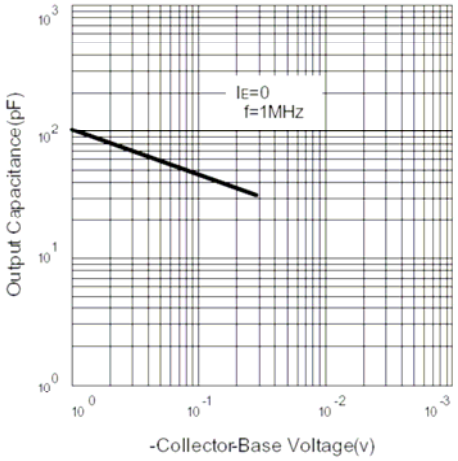
Derating Curve of Safe Operating Areas



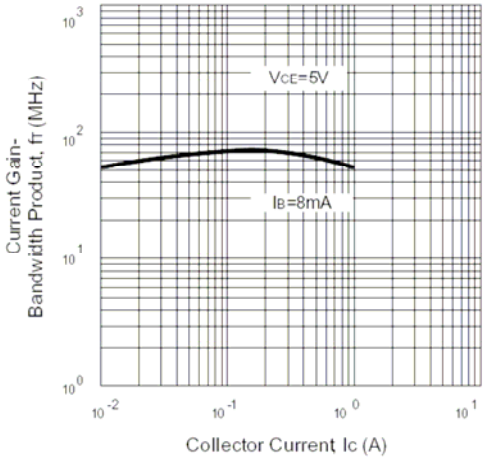
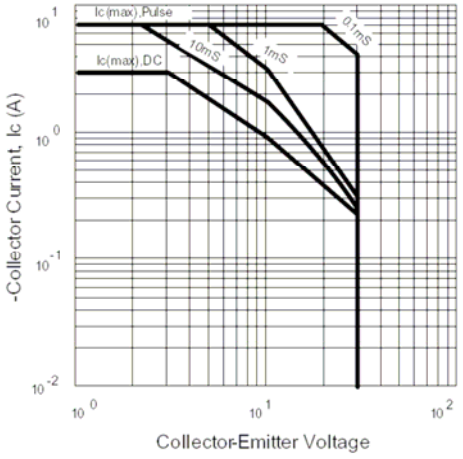
Power Derating



Collector Output Capacitance



Current Gain-
Bandwidth Product



Safe Operating Area