2SC2712 (NPN)

FEATURES

Low Noise: NF=1 dB (Typ),10dB(MAX)

Complementary to 2SA1162

1. BASE
2. EMITTER
3. COLLECTO

SOT-23

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C= 100μA, I_E=0	60			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=1mA , I_B=0	50			V
Emitter-base breakdown voltage	V_{EBO}	I_E= 100μA, I_C=0	5			V
Collector cut-off current	I_{CB}	V_{CB}= 60 V, I_E=0			0.1	μA
Emitter cut-off current	I_{EB}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=6V, I_C=2mA	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 100mA, I_B=10mA		0.1	0.25	V
Transition frequency	f_T	V_{CE}=10V, I_C= 1mA	80			MHz
Output capacitance	Cob	V_{CB}=10V, I_E=0,f=1 MHz		2.0	3.5	pF
Noise Figure	NF	V_{CE}=6V,I_C=0.1mA,f=1kH		1.0	10	dB

CLASSIFICATION OF h_{FE}

Marking	LO	LY	LG	LL
Range	70-140	120-240	200-400	350-700

2SC2712 Typical Characteristics