2SC2714 (NPN)

FEATURES

Small reverse Transfer Capacitance:Cre=0.7pF(typ.)

Low Noise Figure:NF=2.5dB(typ.) (f=100MHz)

1. BASE
2. EMITTER
3. COLLECTO

SOT-23

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current -Continuous	I_C	20	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_J	125	℃
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=10μA,I_E=0	40			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=1mA,I_B=0	30			V
Emitter-base breakdown voltage	V_{EBO}	I_E=10μA,I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=18V,I_E=0			0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.5	μA
DC current gain	h_{FE}	V_{CE}=6V,I_C=1mA	40		200	
Transition frequency	f_T	V_{CE}=6V,I_C=1mA		550		MHz
Reverse Transfer capacitance	C_{re}	V_{CB}=6V,I_E=0,f=1MHz		0.7		pF
Noise figure	NF	V_{CE}=6V,I_c=1mA,f=100MHZ		2.5	5	dB

CLASSIFICATION OF h_{FE}

Marking	QR	QO	QY
Range	40-80	70-140	100 -200

2SC2714 Typical Characteristics