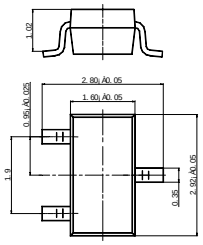
2SC2223 TRANSISTOR (NPN)

SOT-23-3L

1. BASE
2. EMITTER
3. COLLECTOR



FEATURES

Power dissipation

P_{CM}: 150 mW (Tamb=25℃)

Collector current

I_{CM}: 20 mA

Collector-base voltage

$V_{(BR)CBO}$: 30 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=100μA, I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic=1mA, I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=25V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=3V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=6V, I_C=1mA	40		180	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.3	V
Base-emitter voltage	V_{BE}	V_{CE}=6V, I_C=1mA		0.72		V
Transition frequency	f_T	V_{CE}=6V, I_C=1mA	400			MHz
Collector output capacitance	C_{ob}	V_{CB}=6V, I_E=0, f=1MHz		1		pF
Noise figure	NF	V_{CE}=6V, I_c=1mA, f=100MHZ, Rg=50Ω		3		dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	F12	F13	F14
Range	40-80	60-120	90-180
Marking			