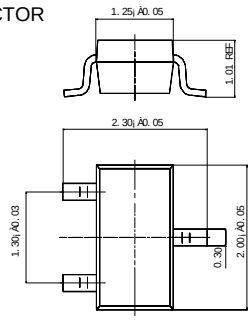
2SA1611 TRANSISTOR (PNP)

SOT-323

1. BASE
2. EMITTER
3. COLLECTOR



Unit: mm

FEATURES

Power dissipation

P_{CM} : 0.15 W (Tamb=25℃)

Collector current

I_{CM} : -0.1 A

Collector-base voltage

$V_{(BR)CBO}$: -60 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

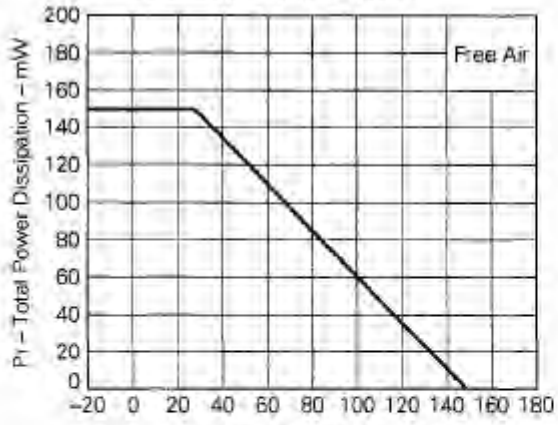
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=-100μA, I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic=-1mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-60V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-6V, I_C=-1mA	90		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA			-0.3	V
Base-emitter voltage	V_{BE}	V_{CE}=-6V, I_C=-1mA	-0.58		-0.68	V
Transition frequency	f_T	V_{CE}=-6V, I_C=-10mA		180		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		4.5		pF

CLASSIFICATION OF $h_{FE(1)}$

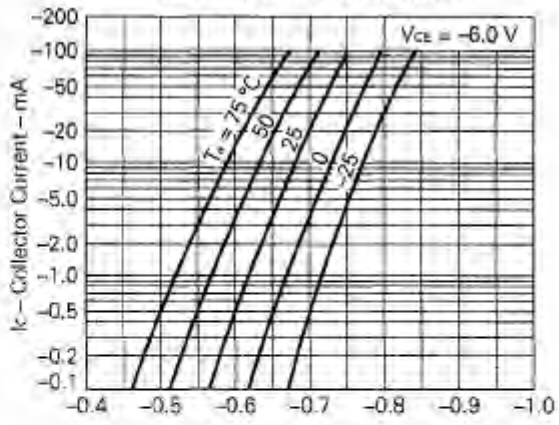
Rank	M4	M5	M6	M7
Range	90-180	135-270	200-400	300-600
Marking	M4	M5	M6	M7

Typical Characteristics 2SA1611

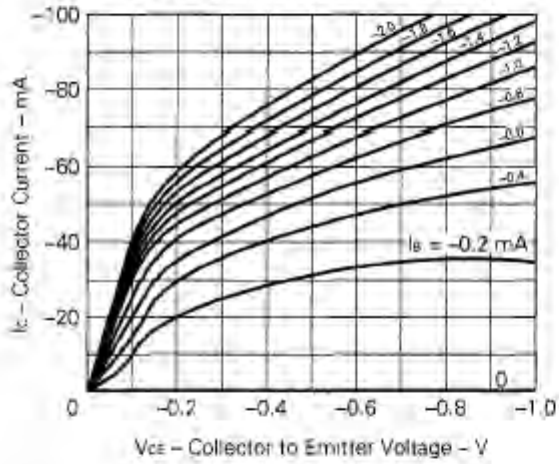
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



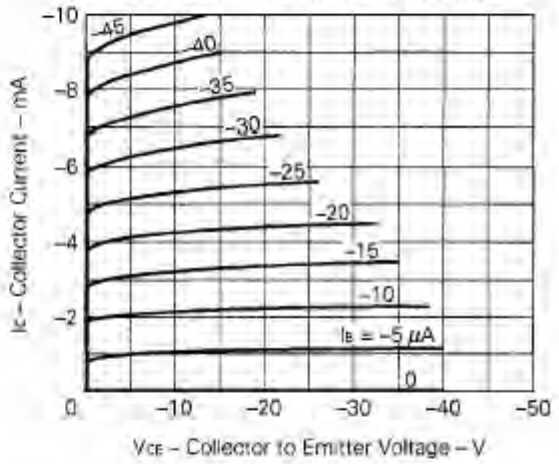
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



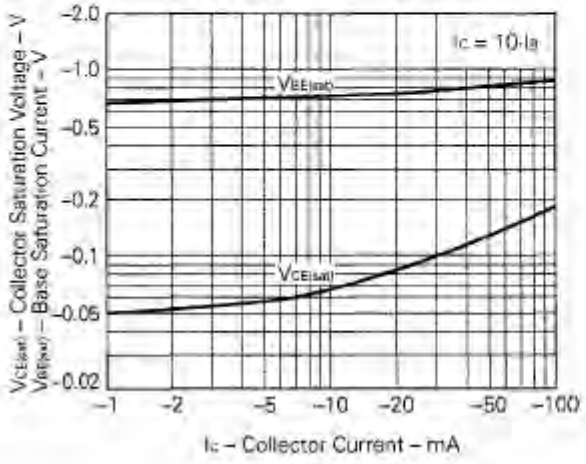
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



BASE AND COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



DC CURRENT GAIN vs. COLLECTOR CURRENT