2SC1623(NPN)

FEATURES

High DC current gain :hFE=200(Typ)VCE=6V, IC=1mA

High voltage:VCEO=50V

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	0.1	A
Collector Power Dissipation	P_C	0.2	W
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

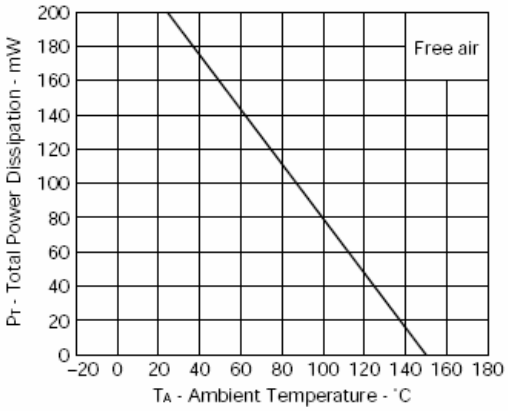
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	VCBO	IC=100μA,IE=0	60			V
Collector-emitter breakdown voltage	VCEO	IC=1mA,IB=0	50			V
Emitter-base breakdown voltage	VEBO	IE=100μA,IC=0	5			V
Collector cut-off current	ICBO	VCB=60V,IE=0			0.1	μA
Emitter cut-off current	IEBO	VEB=5V,IC=0			0.1	μA
DC current gain	hFE	VCE=6V,IC=1mA	90	200	600	
Collector-emitter saturation voltage	VCE(sat)	IC=100mA,IB=10mA			0.3	V
Base-emitter saturation voltage	VBE(sat)	IC=100mA,IB=10mA			1	V
Transition frequency	fT	VCE=6V,IC=10mA		250		MHz

CLASSIFICATIONOF h_{FE}

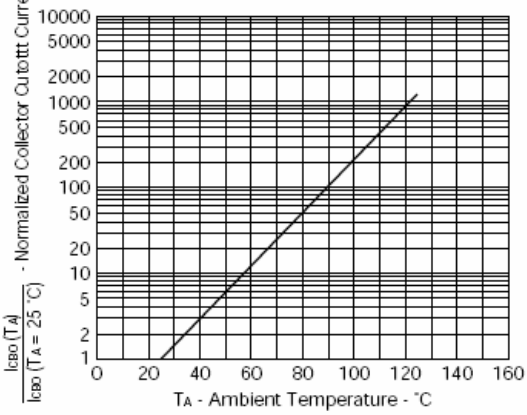
Rank	L4	L5	L6	L7
Range	90-180	135-270	200-400	300-600

2SC1623 Typical Characteristics

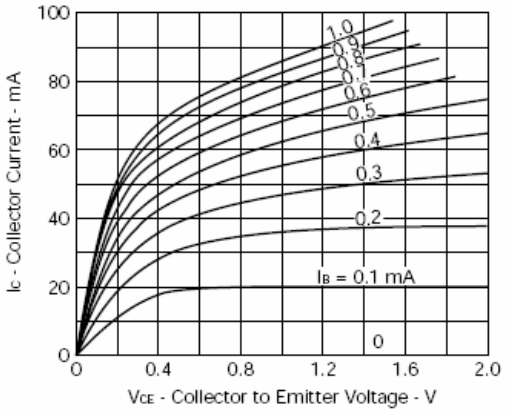
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



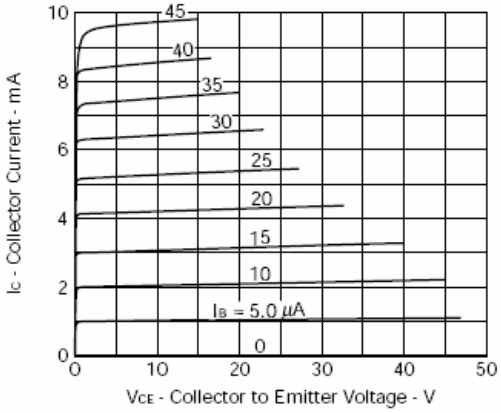
NORMALIZED COLLECTOR CUTOFF CURRENT vs. AMBIENT TEMPERATURE



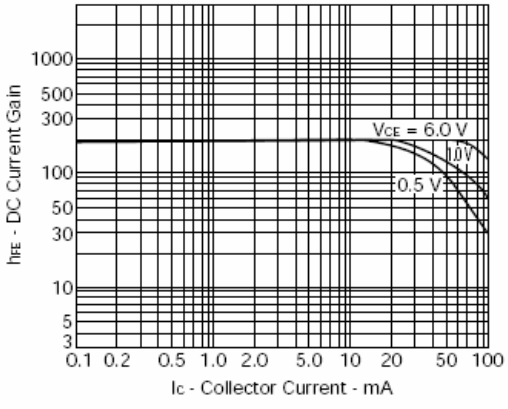
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT



DC CURRENT GAIN vs. COLLECTOR CURRENT