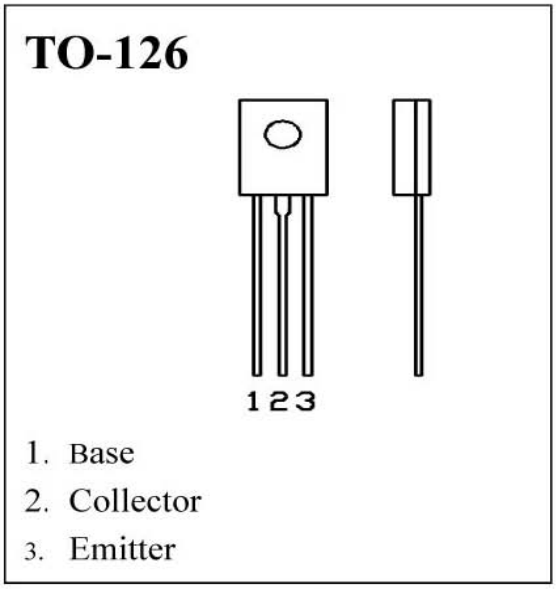
TO-126 Plastic-Encapsulate Transistors

C5027S TRANSISTOR (NPN)



ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

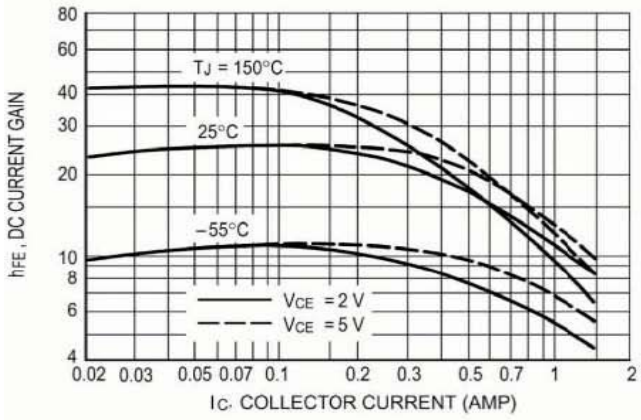
Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	600	V
Emitter-Base voltage	V_{EBO}	9	V
Collector Current	Ic	2	A
Collector Power Dissipation	Pc	1.25	W
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ , unless otherwise specified)

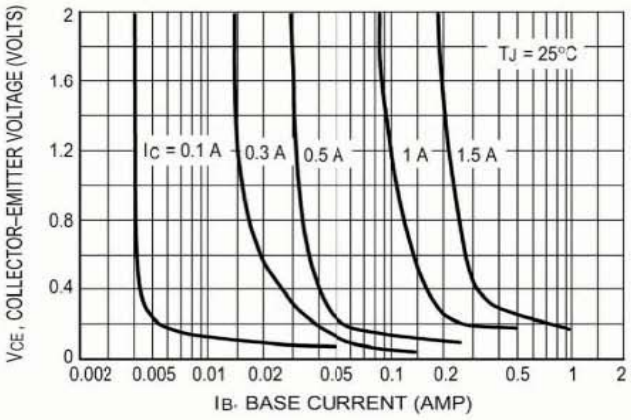
Characteristic	Symbol	Test conditions	MIN	TYP	MAX	Unit
Collector -base breakdown voltage	$V_{(BR)CBO}$	Ic=1000μA ,I_E=0	700			V
*Collector -emitter Sustaining Voltage	$V_{(BR)CEO}$	Ic=10mA ,I_B=0	600			V
Emitter cut-off current	I_{EBO}	V_{EB}= 9 V, I_C=0			1000	μA
DC current gain	H_{FE}（1） H_{FE}（2）	V_{CE}=2V,I_C=0.5A V_{CE}=10V,I_C=0.5m A	8 5		40	
Collector -emitter saturation voltage	V_{CE}(sat)	IC=1000m A ,IB= 250 m A			1	V
Base-emitter saturation voltage	V_{BE}(sat)	IC=1000m A, IB= 250m A			1.2	V
Base Emitter Voltage	$V_{BE(ON)}$	IE= 2000 m A			3	V
Current Gain Bandwidth Product	f_T	VCE=10V,Ic=100mA f =1MHz	5			MHZ
Turn On Time	T_{ON}	Ic=1A,I_{B1}=I_{B2}=0.2A V_{CC}=100V				μs
Storage Time	ts				0.5	μs
Fall Time	tf				0.5	μs

Typical Characteristics

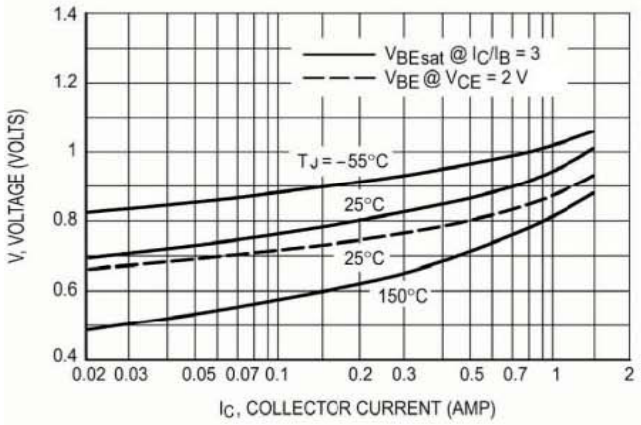
C5027S



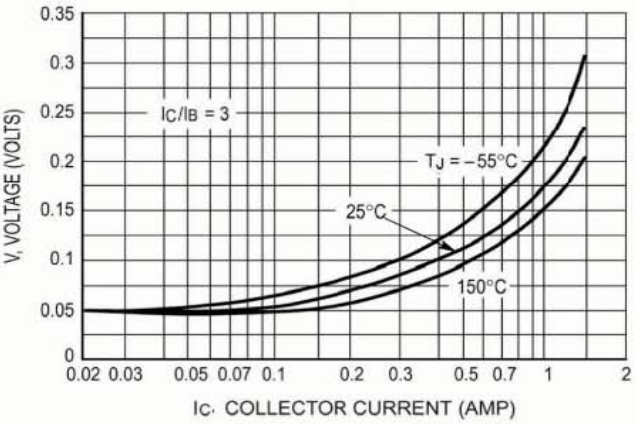
DC Current Gain



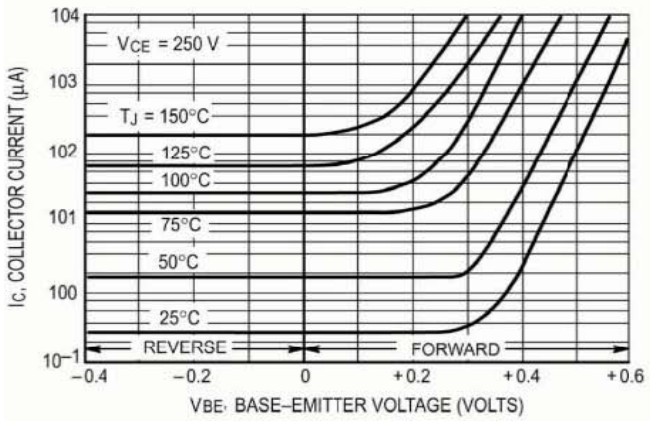
Collector Saturation Region



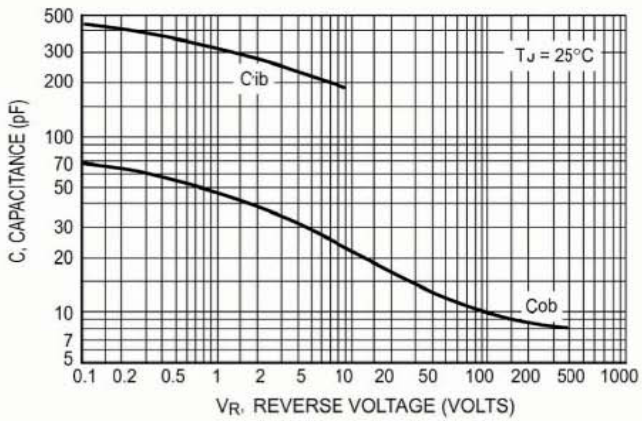
Base−Emitter Voltage



Collector−Emitter Saturation Region



Collector Cutoff Region



Capacitance