

TO-126 Plastic-Encapsulate Transistors

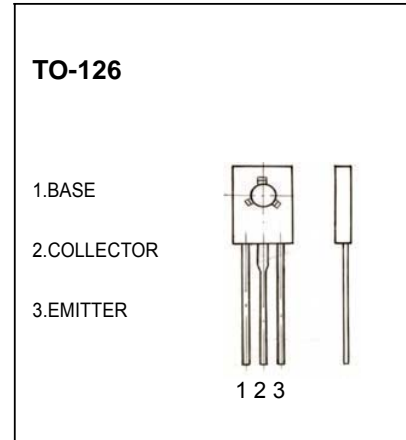
2SC3097 TRANSISTOR (NPN)

FEATURES

Power amplifier applications

MAXIMUM RATINGS* T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	1350	V
V _{CE0}	Collector-Emitter Voltage	800	V
V _{EBO}	Emitter-Base Voltage	9	V
I _c	Collector Current –Continuous	1.5	A
I _{cp}	Collector Current –Pulse	3	A
P _c	Collector Dissipation	1	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C



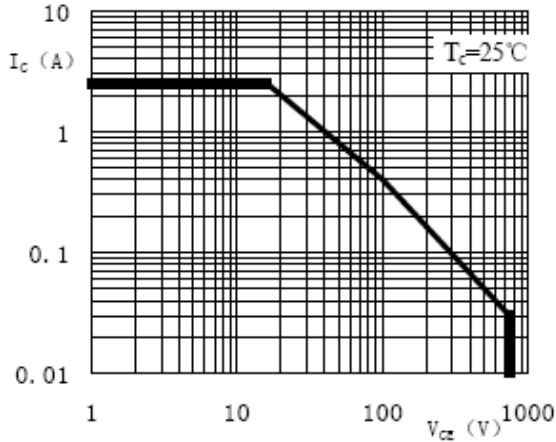
Marking: NZP 2SC3097 ****

ELECTRICAL CHARACTERISTICS(T_{amb}=25°C unless otherwise specified)

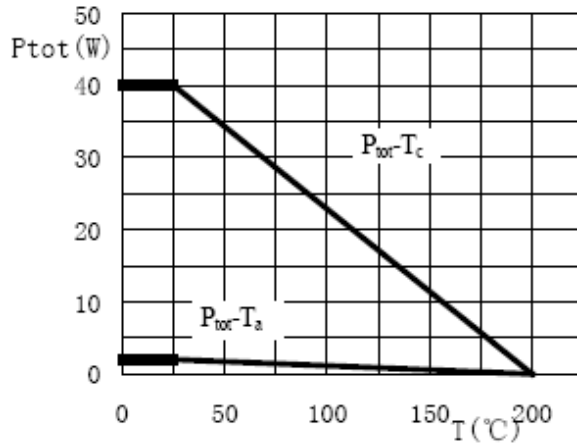
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _c =0.1mA, I _E =0	1350			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c =1mA, I _B =0	800			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =0.1mA, I _C =0	9			V
Collector cut-off current	I _{CBO}	V _{CB} =1300V, I _E =0			100	μA
Emitter cut-off current	I _{EBO}	V _{EB} =9V, I _C =0			10	μA
DC current gain	h _{FE}	V _{CE} =5V, I _C =100mA	24		35	
		V _{CE} =5V, I _C =1.5A	5		25	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =0.5A, I _B =0.2A		0.8	1.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =1A, I _B =0.2A			1	V
Transition frequency	f _T	V _{CE} =10V, I _C =100mA	3			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, f=1MHz		30		pF
Raise time	t _r	UI9600, I _C =0.5A			4	μS
Storage time	t _{stg}		1		4	μS
Fall time	t _f				4	μS
Rank	CLASSIFICATION OF h _{FE} V _{CE} =5V, I _C =100mA					
Range	24--35					

Characteristic curve

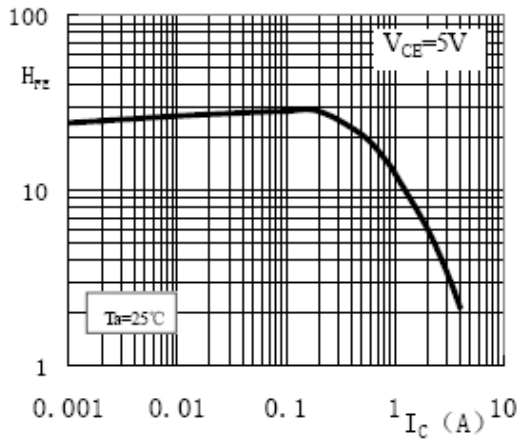
Secure working area (DC)



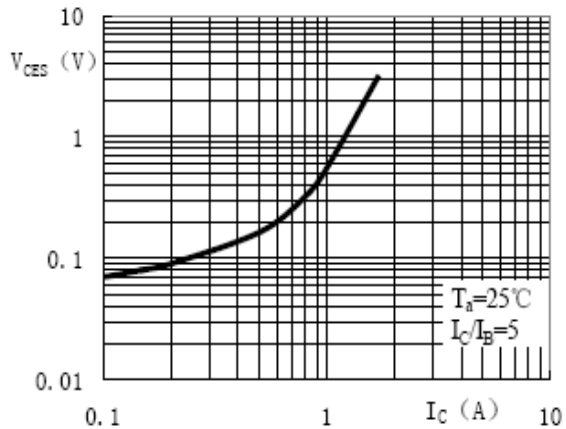
Ptot ~ T Relation curve



HFE ~ Ic Relation curve



Vces ~ Ic Relation curve



Vbes ~ Ic Relation curve

