



2SC3098 Transistor(NPN)

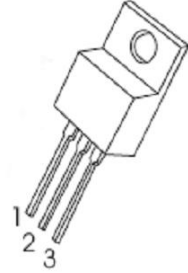
Feature

- Power amplifier applications

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	1350	V
Collector-Emitter Voltage	V _{CEO}	800	V
Emitter-Base Voltage	V _{EBO}	9	V
Collector Current -Continuous	I _c	4	A
Collector Current -Pulse	I _{CP}	8	A
Power Dissipation	P _d	2	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~ +150	°C

TO-220-3L



1. BASE
2. COLLECTOR
3. EMITTER

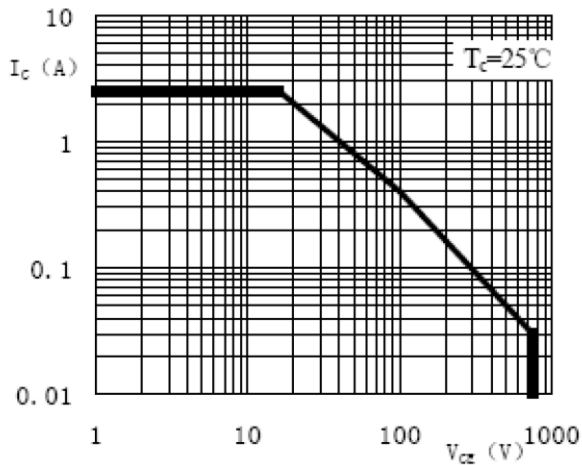
ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	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 _{CB0}	V _{CB} =1350V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =9V, I _c =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =5V, I _c =200mA	10		40	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =1A, I _B =0.2A		0.5	3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c =1A, I _B =0.2A		0.9	1.5	V
Transition frequency	f _T	V _{CE} =10V, I _c =100mA	3			MHZ
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}		2		8	μS
Fall time	t _f				4	μS

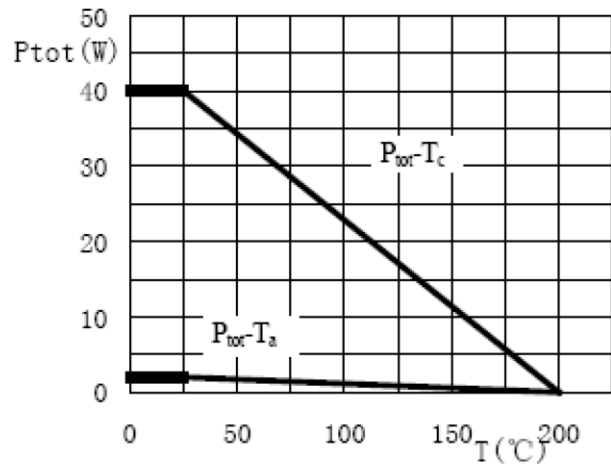
Rank	Classification of h _{FE} (V _{CE} =5V,I _c =200mA)		
Range	10-20	20-30	30-40

Typical Characteristics

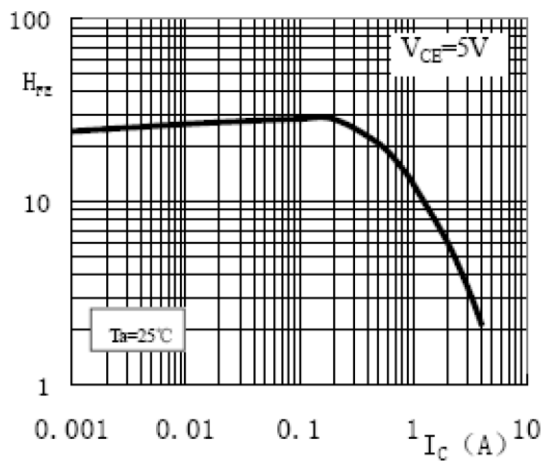
Secure working area (DC)



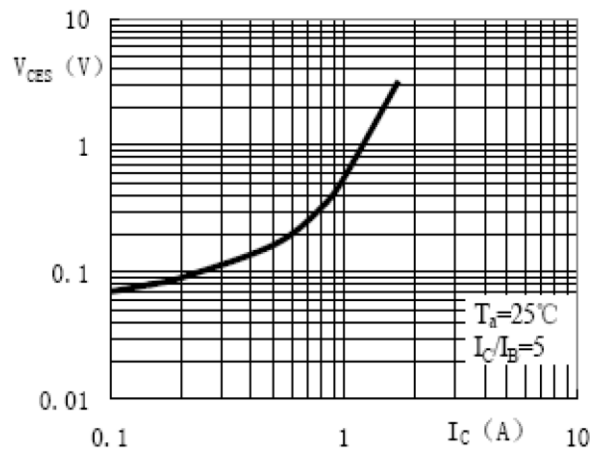
Ptot ~ T Relation curve



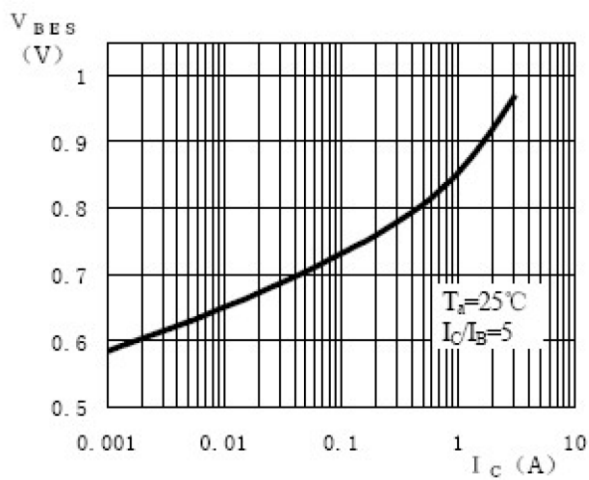
HFE ~ Ic Relation curve

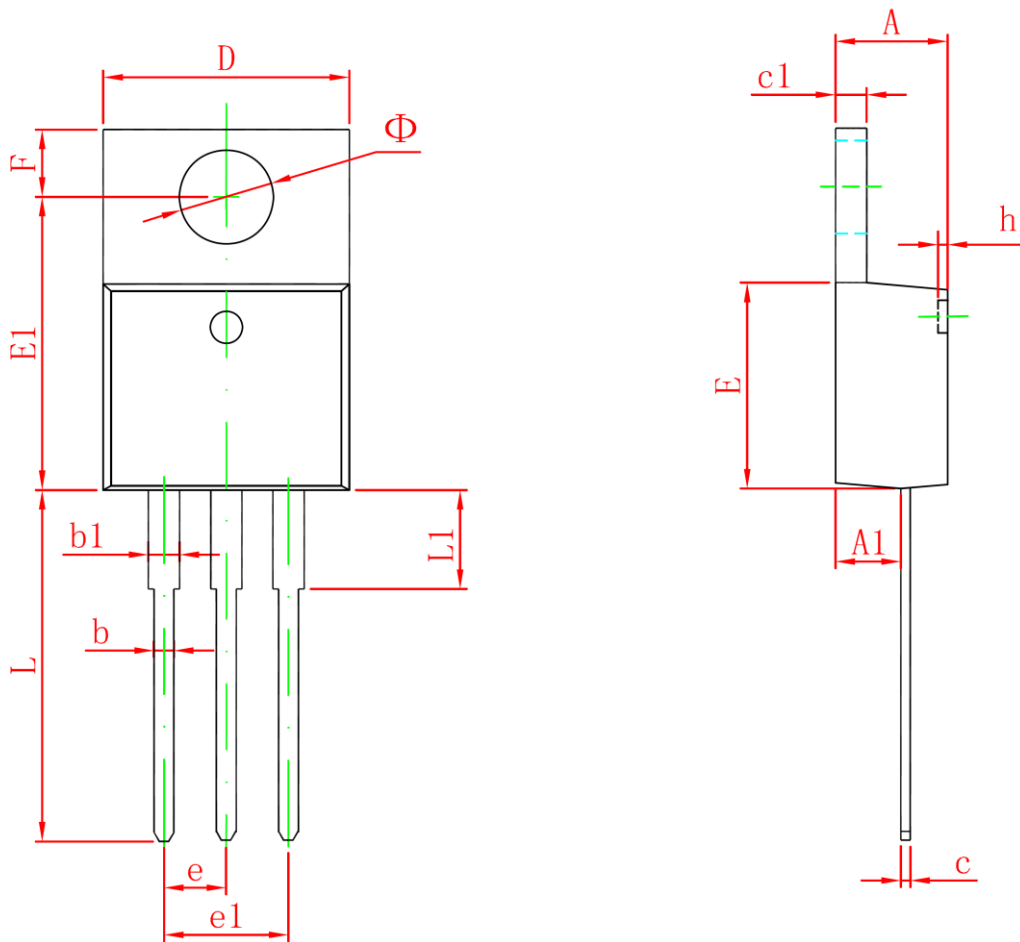


Vces ~ Ic Relation curve



VBES ~ Ic Relation curve



TO-220-3L Package Information


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	4.470	4.670
A1	2.520	2.820
b	0.710	0.910
b1	1.170	1.370
c	0.310	0.530
c1	1.170	1.370
D	10.010	10.310
E	8.500	8.900
E1	12.060	12.460
e	2.540 TYP.	
e1	4.980	5.180
F	0.000	0.300
L	13.400	13.800
L1	3.560	3.960
	3.735	3.935