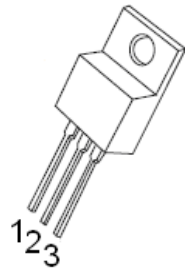
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

TO-220-3L Plastic-Encapsulate Transistors

2SD880 TRANSISTOR (NPN)

TO-220-3L

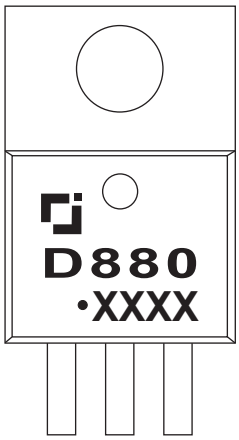


1. BASE
2. COLLECTOR
3. EMITTER

FEATURES

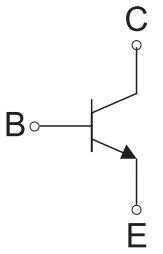
- Low Frequency Power Amplifier
- Complement to 2SB834

MARKING



D880=Device code
Solid dot=Green moldinn compound device,
if none,the normal device
XXXX=Code

Equivalent Circuit



MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	1.5	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

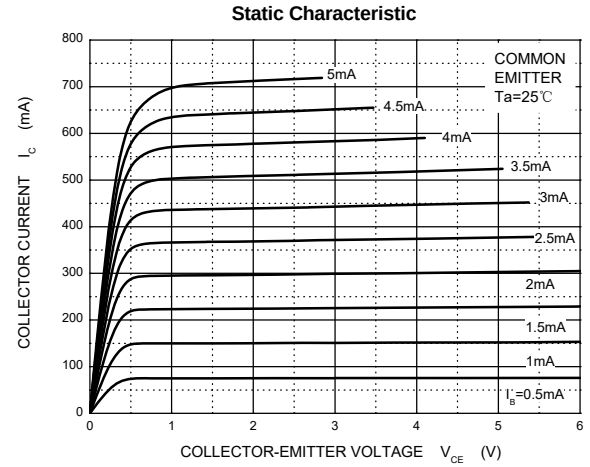
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

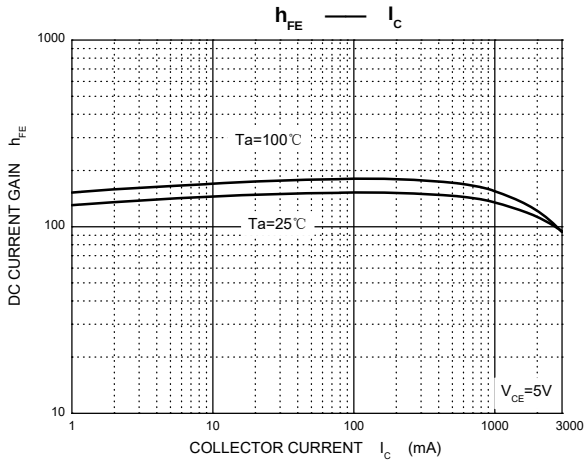
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=50mA, I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA, I_C=0	7			V
Collector cut-off current	I_{CBO}	V_{CB}=60V, I_E=0			100	μA
Emitter cut-off current	I_{EBO}	V_{EB}=7V, I_C=0			100	μA
DC current gain	h_{FE}	V_{CE}=5V, I_C=500mA	60		300	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C=3A, I_B=300mA			1	V
Base-emitter voltage	V_{BE}	I_C=0.5A, V_{CE}= 5V			1	V
Transition Frequency	f_T	V_{CE}=5 V, I_C=500mA		3		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		40		pF
Turn on time	t_{on}	I_{B1}=-I_{B2}=0.2A, I_C=2A V_{CC}=30V, PW=20μs		0.8		μs
Storage time	t_s			1.5		μs
Fall time	t_f			0.8		μs

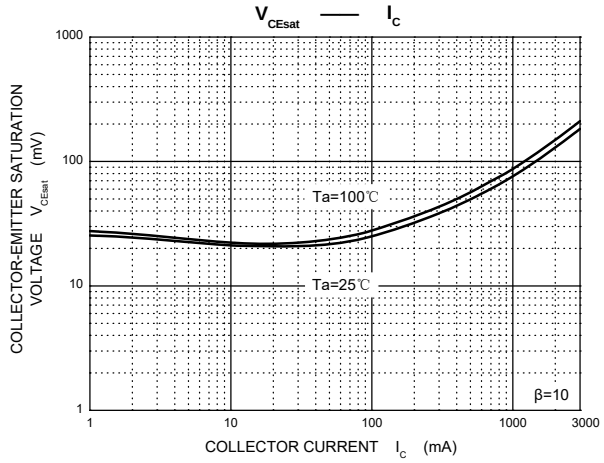
CLASSIFICATION OF h_{FE}

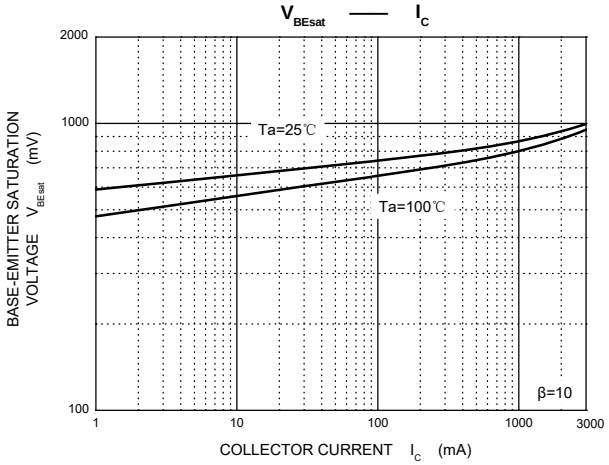
Rank	O	Y	GR
Range	60-120	100-200	150-300

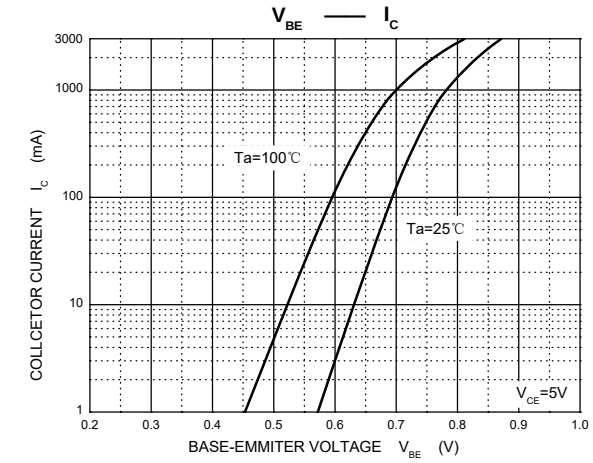
Typical Characteristics

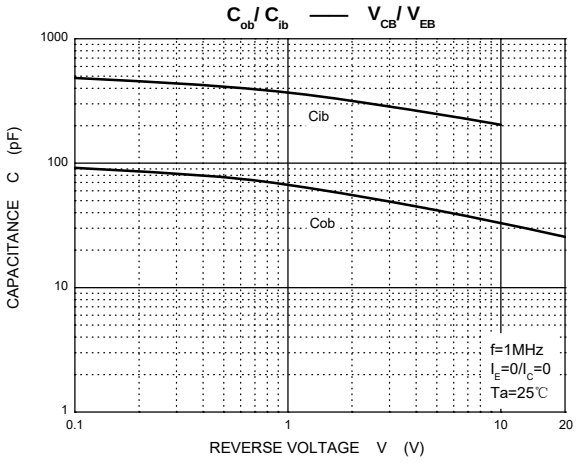


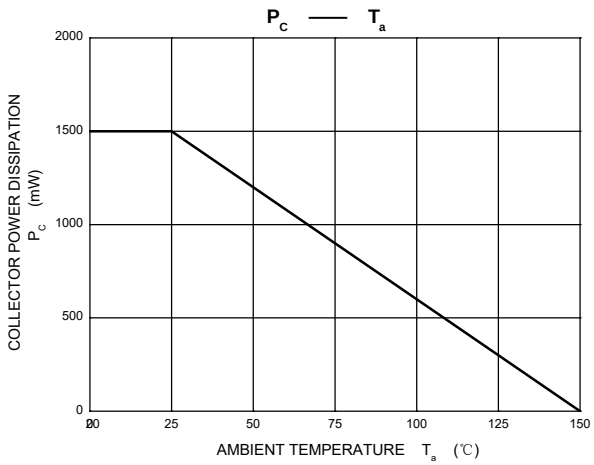




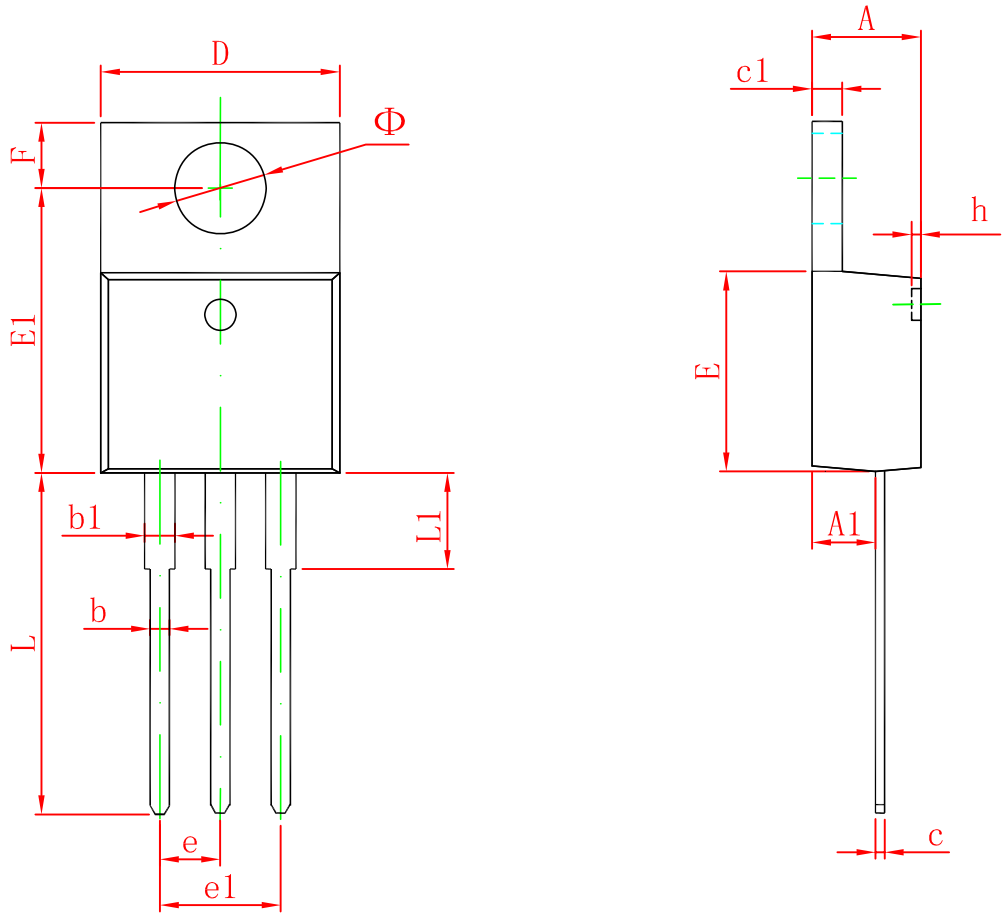








TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155