



Micro Commercial Components



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20736 Marilla Street Chatsworth
CA 91311

Phone: (818) 701-4933

Fax: (818) 701-4939

2SD1138-B 2SD1138-C

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Frequency Power Amplifier Color TV Vertical Deflection Output
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	150	V
V _{CBO}	Collector-Base Voltage	200	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current	2	A
P _C	Collector power dissipation	1.8	W
T _J	Junction Temperature	-55 to +150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Type	Max	Units
OFF CHARACTERISTICS					
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =50mA, I _B =0)	150	---	---	Vdc
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =5mA, I _E =0)	200	---	---	Vdc
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _E =5mA, I _C =0)	6	---	---	Vdc
I _{CBO}	Collector-Base Cutoff Current (V _{CB} =120V, I _E =0)	---	---	1.0	μA
I _{EBO}	Emitter-Base Cutoff Current (V _{EB} =5V, I _C =0)	---	---	1.0	μA

ON CHARACTERISTICS

h _{FE}	Forward Current Transfer ratio (I _C =50mA, V _{CE} =4Vdc) (I _C =500mA, V _{CE} =10Vdc)	60	---	200	---
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =500mA, I _B =50mA)	---	---	3	Vdc
V _{BE}	Base-Emitter Voltage (I _C =50mA, V _{CE} =4Vdc)	---	---	1	Vdc
C _{ob}	Collector Output Capacitance (V _{CB} =10V, I _E =0, f=1MHz)	---	30	---	pF

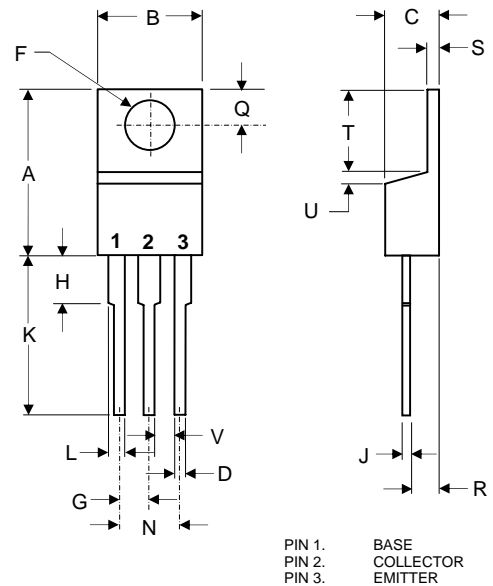
Classification OF h_{FE}

Rank	B	C
Range	60~120	100-200

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

NPN Silicon Power Transistors

TO-220



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	-----	.050	-----	1.27	
V	.045	-----	1.15	-----	



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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1 Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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