



Micro Commercial Components



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2SD2118

**NPN Silicon
Plastic-Encapsulate
Transistor**

Features

- Excellent DC Current Gain Characteristics.
- LOW $V_{CE(sat)}$, $V_{CE(sat)} = 0.25V$ (Typ.) ($I_C/I_B = 4A / 0.1A$)
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	20	V
V_{CBO}	Collector-Base Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6.0	V
I_C	Collector Current	5.0	A
P_D	Power Dissipation	1.0	W
T_J	Operating Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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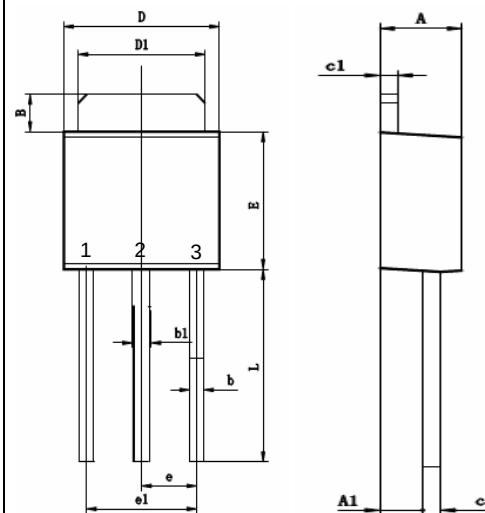
OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=1mA$, $I_B=0$)	20	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=50\mu A$, $I_E=0$)	50	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=50\mu A$, $I_C=0$)	6.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=40V$, $I_E=0$)	---	0.50	mA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0V$, $I_C=0$)	---	0.5	mA
h_{FE1}	DC Current Gain ($I_C=0.5A$, $V_{CE}=2V$)	120	390	---
$V_{CE(sat)1}$	Collector-Emitter Saturation Voltage ($I_C=4A$, $I_B=0.1A$)	---	1.0	Vdc
f_T	Transition Frequency ($V_{CE}=6V$, $I_C=0.05A$, $f=100KHz$)	150		pF
C_{ob}	Collector output capacitance ($V_{CB}=20V$, $I_E=0$, $f=1MHz$)	30		MHz

CLASSIFICATION OF h_{FE}

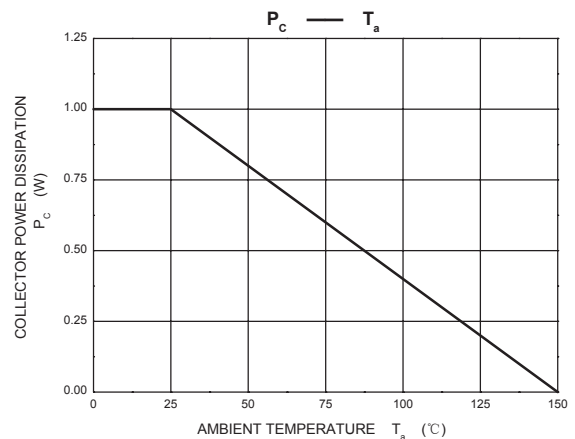
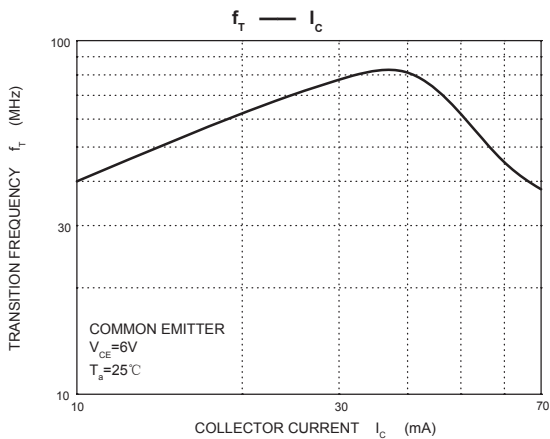
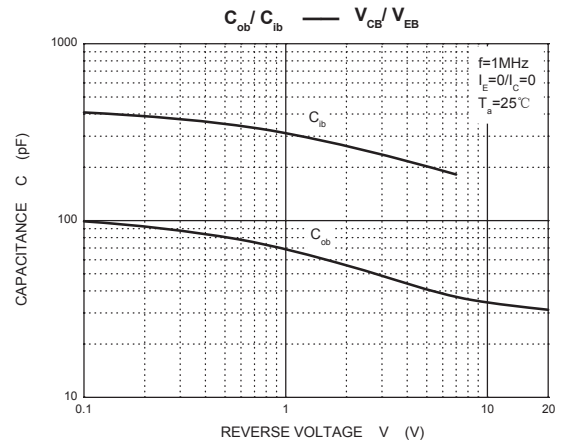
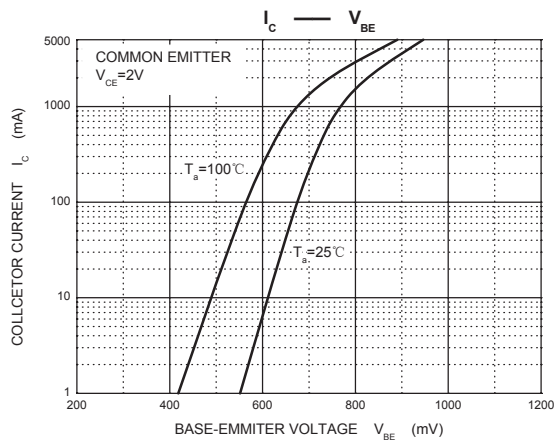
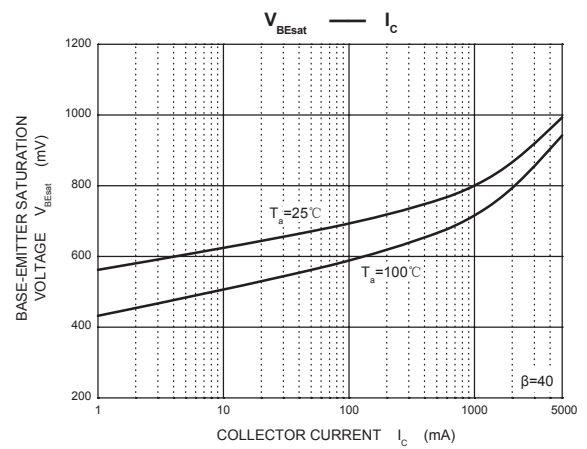
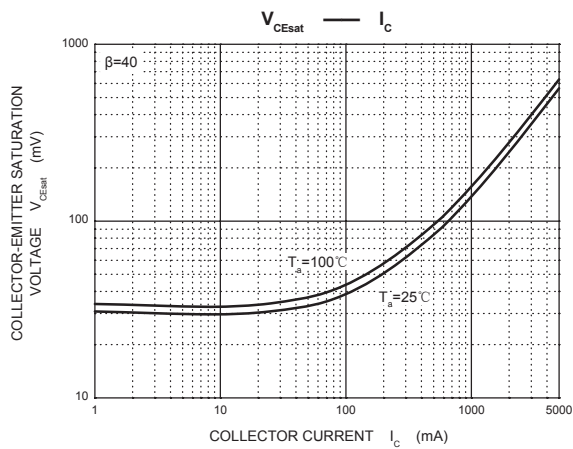
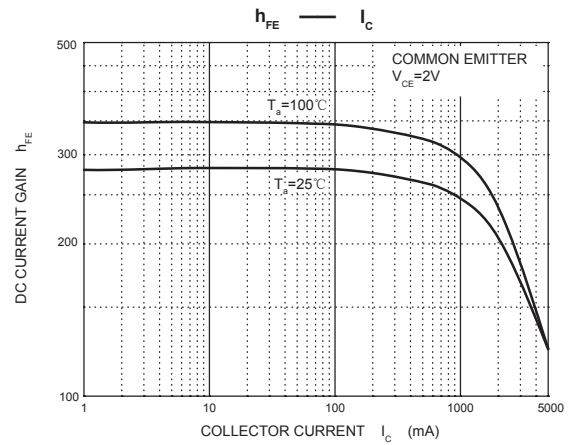
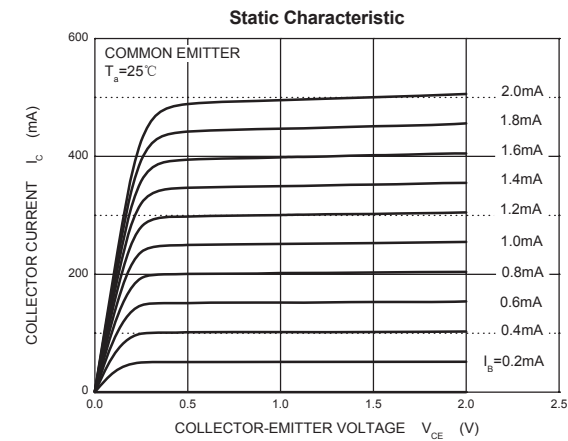
Rank	Q	R
Range	120-270	180-390

TO-251



1.BASE
2.COLLECTOR
3.EMITTER

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.087	.094	2.20	2.40	
A1	.042	.054	1.05	1.35	
B	.053	.065	1.35	1.65	
b	.020	.028	0.50	0.70	
b1	.028	.035	0.70	0.90	
c	.017	.023	0.43	0.58	
c1	.017	.023	0.43	0.58	
D	.250	.262	6.35	6.65	
D1	.205	.213	5.20	5.40	
E	.213	.224	5.40	5.70	
e1	0.091TYP		2.300TYP		
e	.177	.185	4.50	4.70	
L	.295	.311	7.50	7.90	



Ordering Information :

Device	Packing
Part Number-BP	Bulk: 4Kpcs/Carton

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