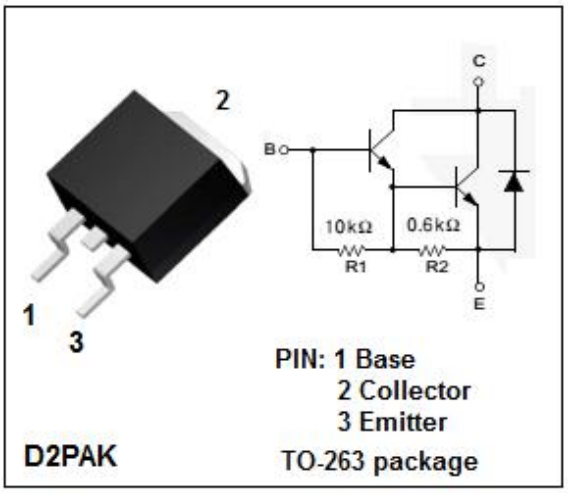
isc Silicon NPN Power Transistor — FJB102

DESCRIPTION

- High DC Current Gain-
  : h_{FE} = 1000(Min)@ I_C= 3A
- Low Collector-Emitter Saturation Voltage
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

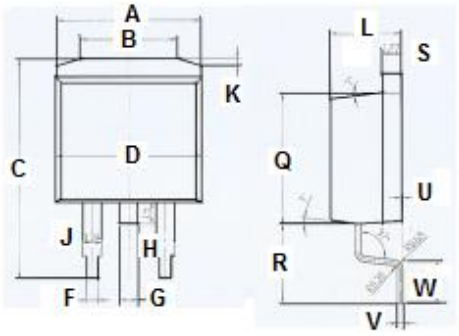


APPLICATIONS

- Designed for general purpose amplifier and low speed switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CP}	Collector Current-Pulse	15	A
I_B	Base Current	1	A
P_C	Total Power Dissipation @ T_C=25℃	80	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA, I_B= 0	100			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 3.0A; I_B= 6mA			2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 80mA			2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 8A; V_{CE}=4V			2.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0			50	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 50V, I_B= 0			50	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			2	mA
h_{FE-1}	DC Current Gain	I_C= 3A; V_{CE}= 4V	1000		20000	
h_{FE-2}	DC Current Gain	I_C= 8A; V_{CE}= 4V	200			
Cob	Collector output capacitance	V_{CB}=10V ,I_E=0,f=1MHz		200		pF