

isc Silicon NPN Power Transistor

FJB102

DESCRIPTION

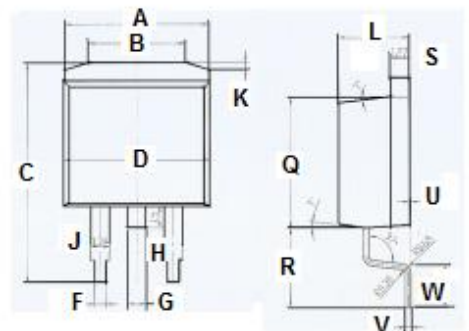
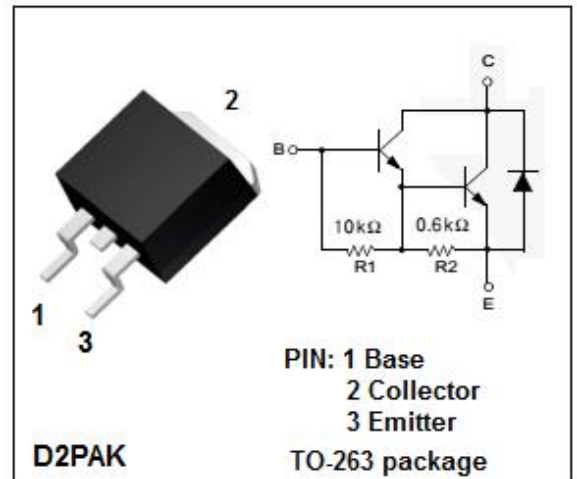
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min}) @ I_C = 3A$
- Low Collector-Emitter Saturation Voltage
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

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 @ $T_C = 25^\circ\text{C}$	80	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



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°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CE0(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	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 50V, I _B = 0			50	μ A
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

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