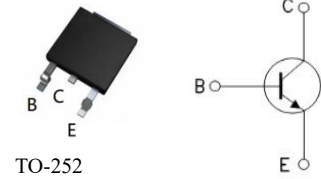


Silicon NPN Power Transistors

●DESCRIPTION:

The MJD31C is Silicon NPN power transistors, designed for medium power linear switching applications.



●ABSOLUTE MAXIMUM RATINGS

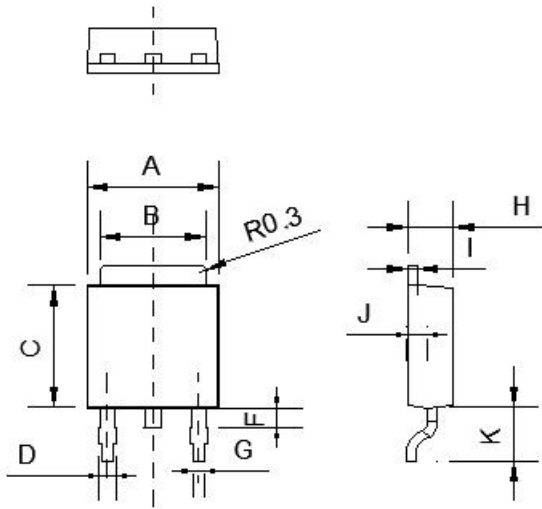
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Continuous Collector Current	3	A
I_{CM}	Collector current-Pulse	5	A
I_B	Base Current	1	A
P_{TOT}	Total dissipation at $T_{case}=25\text{ }^{\circ}\text{C}$	15	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

●ELECTRICAL CHARACTERISTICS ($T_c = 25^{\circ}\text{C}$, unless otherwise specified)

Symbol	Parameter	Test Condition	Value			Unit
			Min	Type	Max	
I_{CEO}	Collector Cutoff Current	$V_{CE} = 60\text{ V}$			0.3	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{ V}$			1	mA
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 30\text{ mA}$	100			V
V_{CEsat}	Collector-Emitter Saturation Voltage	$I_C = 3\text{ A}$; $I_B = 0.375\text{ A}$			1.2	V
V_{BE}	Base-Emitter On Voltage	$I_C = 3\text{ A}$; $V_{CE} = 4\text{ V}$			1.8	V
h_{FE-1}	DC current gain	$I_C = 1\text{ A}$; $V_{CE} = 4\text{ V}$	25			
h_{FE-2}	DC current gain	$I_C = 3\text{ A}$; $V_{CE} = 4\text{ V}$	10		50	
f_T	Transiton frequency	$I_C = 0.5\text{ A}$; $V_{CE} = 10\text{ V}$	3			MHz

● PACKAGE MECHANICAL DATA

To-252



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	6.5	6.7	0.256	0.264
B	5.21	5.46	0.205	0.215
C	6	6.2	0.236	0.244
D	0.71	1.04	0.028	0.041
F	0.62	0.92	0.024	0.036
G	0.64	0.88	0.025	0.035
H	2.2	2.4	0.087	0.094
I	0.45	0.58	0.018	0.023
J	0.97	1.17	0.038	0.046
K	2.7	3.1	0.106	0.122

● ELECTRICAL CHARACTERISTICS (CURVES)

