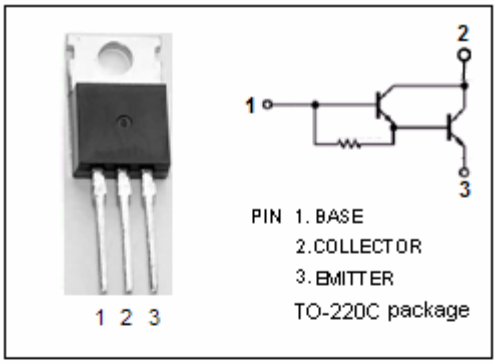
isc Silicon NPN Power Transistors KSD5018



DESCRIPTION

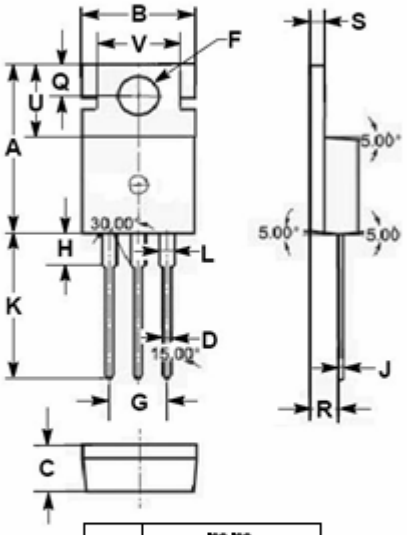
- High Breakdown Voltage-
  : $V_{(BR)CEO}$= 275V(Min)
- Built-in Resistor Between Base and Emitter
- Wide Area of Safe Operation

APPLICATIONS

- Designed for motor drive and general purpose applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	600	V
V_{CEO}	Collector-Emitter Voltage	275	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	6	A
I_B	Base Current-Continuous	0.5	A
P_C	Collector Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CER}	Collector-Emitter Voltage	I_C= 1mA; R_{BE}= 330Ω	600			V
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 1.5A; I_{B1}= 0.05A;Clamped	275			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 5mA			1.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 20mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 5mA			2.0	V
I_{CES}	Collector Cutoff Current	V_{CE}= 500V			1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 10V; I_C= 0			1	mA
h_{FE-1}	DC Current Gain	I_C= 2A ; V_{CE}= 2V	1000			
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 2V	200			