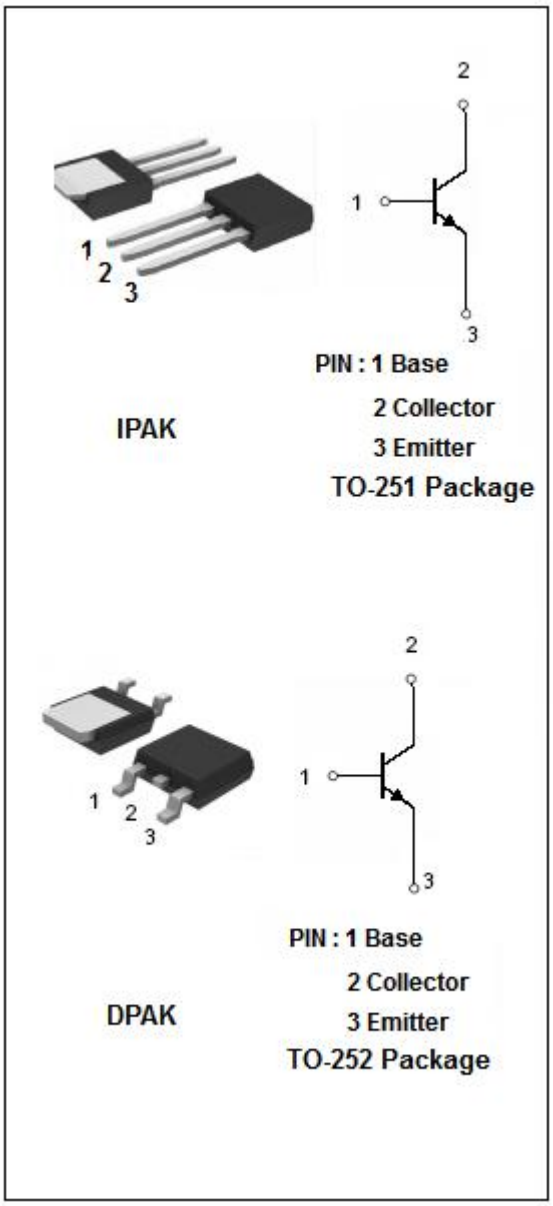
isc Silicon NPN Power Transistor KSH31C

DESCRIPTION

- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, "—I" suffix)
- Electrically similar to popular TIP31C
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- General purpose amplifier low speed switching application

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	3	A
P_C	Total Power Dissipation @ Ta=25℃	1.56	W
P_C	Total Power Dissipation @ T_C=25℃	15	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$*	Collector-Emitter Breakdown Voltage	I_C= 30mA; I_B= 0	100			V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 375mA			1.2	V
$V_{BE(on)}$*	Base-Emitter On Voltage	I_C= 3A; V_{CE}=4V			1.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0			20	uA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1.0	mA
h_{FE1}*	DC Current Gain	I_C= 1A; V_{CE}= 4V	25			
h_{FE2}*	DC Current Gain	I_C= 3A; V_{CE}= 4V	10		50	
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V	3			MHz

*:Pulse test PW≤300us,duty cycle≤2%

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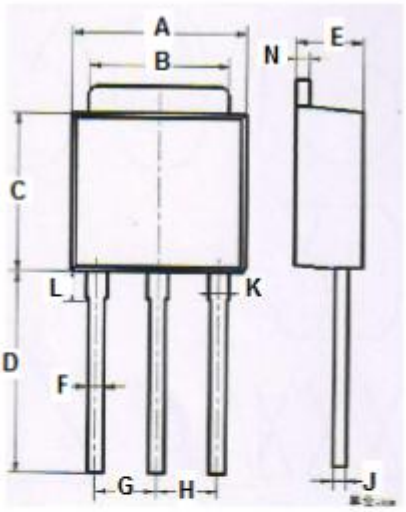
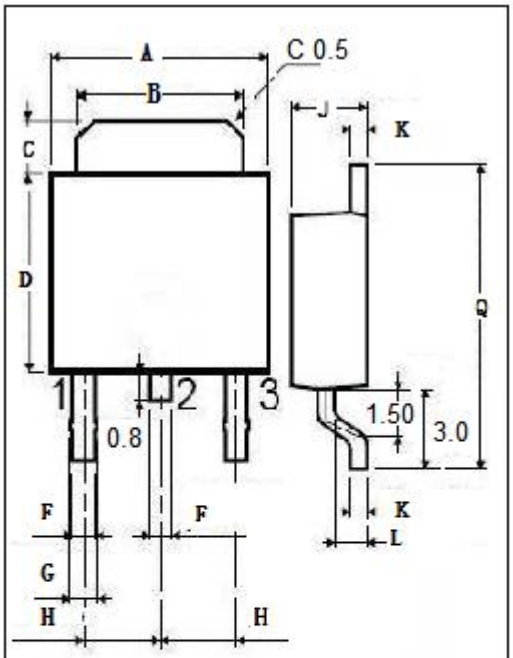
Outline Drawing



DIM	mm MIN	MAX
A	6.40	6.48
B	5.10	5.50
C	5.80	6.20
D	9.20	9.60
E	2.20	2.40
F	0.50	0.70
G	2.09	2.49
H	2.09	2.49
J	0.40	0.60
K	0.70	0.90
L	1.60	2.00
N	0.40	0.60



DIM	mm MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1