

isc Silicon NPN Power Transistor**KSH31C****DESCRIPTION**

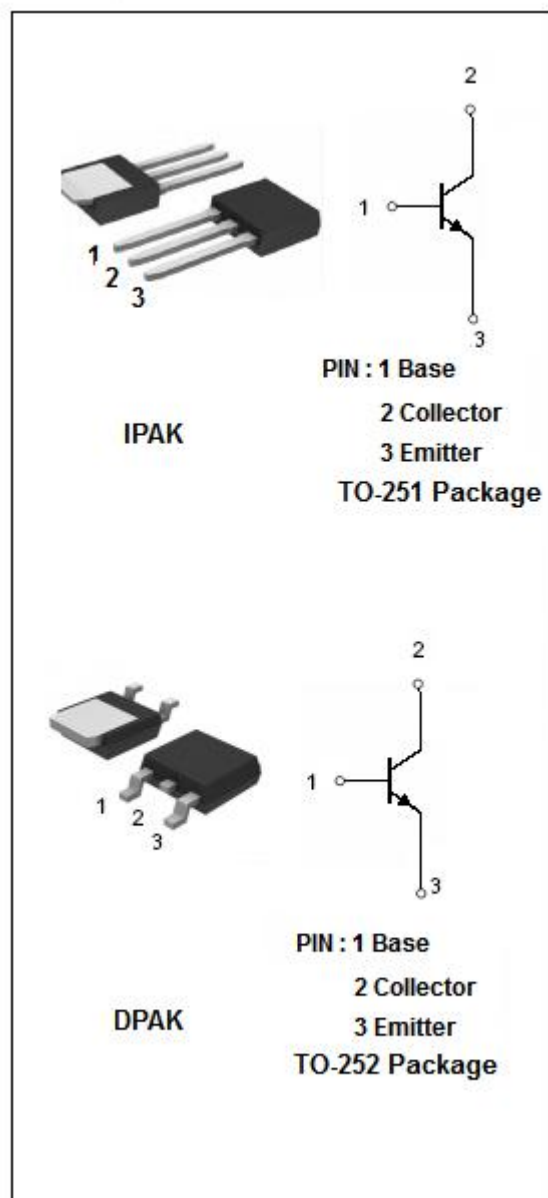
- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, “—I” suffix)
- Electrically similar to popular TIP31C
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- General purpose amplifier low speed switching application

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

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	3	A
P_C	Total Power Dissipation @ $T_a=25^\circ\text{C}$	1.56	W
P_C	Total Power Dissipation @ $T_c=25^\circ\text{C}$	15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**KSH31C****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

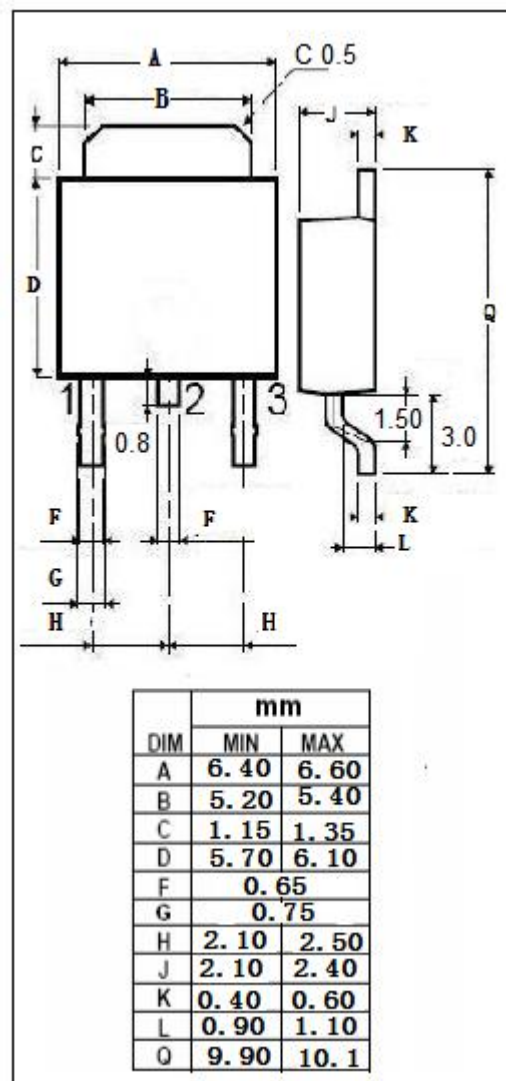
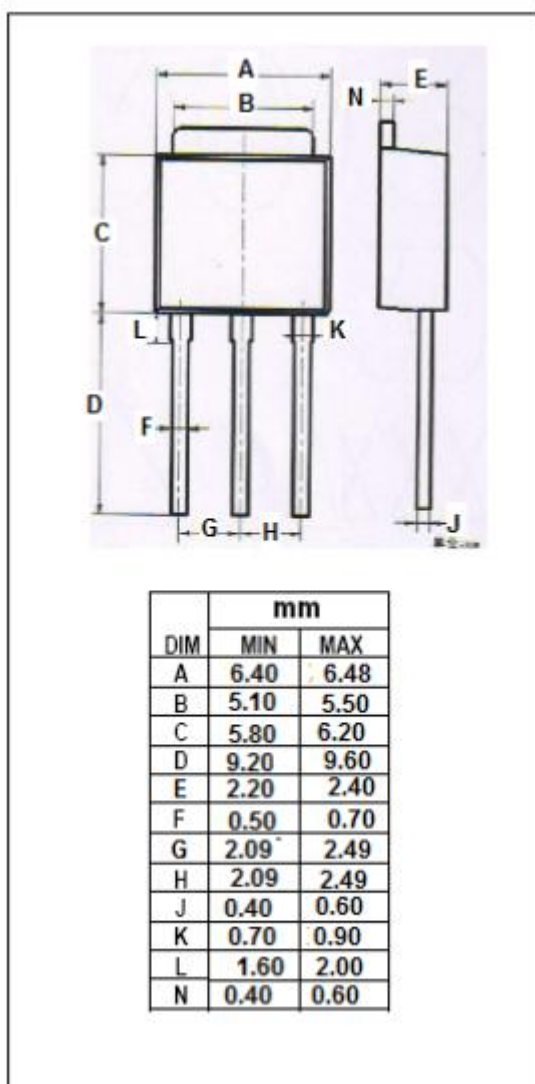
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)CEO} *	Collector-Emitter Breakdown Voltage	I _C = 30mA; I _B = 0	100			V
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 375mA			1.2	V
V _{BE(on)} *	Base-Emitter On Voltage	I _C = 3A; V _{CE} =4V			1.8	V
I _{CBO}	Collector Cutoff 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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KSH31C

Outline Drawing



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