

isc Silicon NPN Power Transistor

KSH200

DESCRIPTION

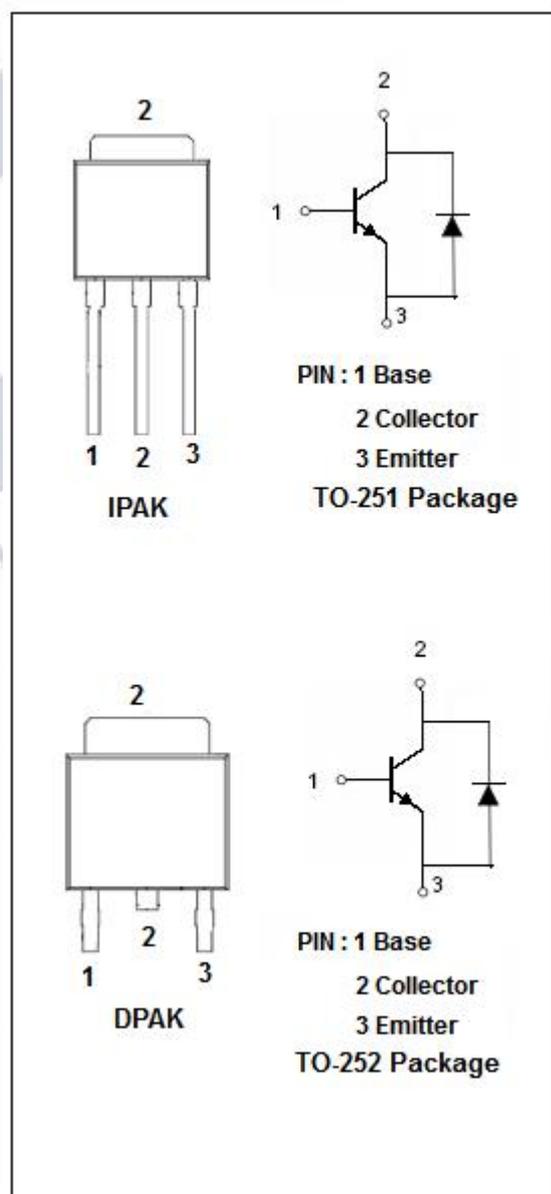
- High DC current gain
- Built-in a damper diode at E-C
- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, “-1” suffix)
- DPAK for surface mount applications
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Low frequency power amplifier

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	40	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	8	V
I _C	Collector Current-Continuous	5	A
P _C	Total Power Dissipation @ T _a =25°C	1.4	W
P _C	Total Power Dissipation @ T _c =25°C	12.5	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



isc Silicon NPN Power Transistor**KSH200****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 = 100mA; I _B = 0	25			V
V _{CE(sat)-1*}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 50mA			0.3	V
V _{CE(sat)-2*}	Collector-Emitter Saturation Voltage	I _C = 2.0A; I _B = 200mA			0.75	V
V _{CE(sat)-3*}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.8	V
V _{BE(sat)*}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			2.5	V
V _{BE(on)*}	Base-Emitter On Voltage	I _C = 2A; V _{CE} =1V			1.6	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 40V; I _E = 0			100	nA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 8V; I _C = 0			100	nA
h _{FE1*}	DC Current Gain	I _C = 0.5A; V _{CE} = 1V	70			
h _{FE2*}	DC Current Gain	I _C = 2A; V _{CE} = 1V	45		180	
h _{FE3*}	DC Current Gain	I _C = 5A; V _{CE} = 2V	10			
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 10V		65		MHz
C _{ob}	Collector output capacitance	V _{CB} =10V, I _E =0, f=1MHz		80		pF

*:Pulse test PW≤300us,duty cycle≤2%

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Outline Drawing

