

**isc Silicon PNP Power Transistor**

**KSH210**

**DESCRIPTION**

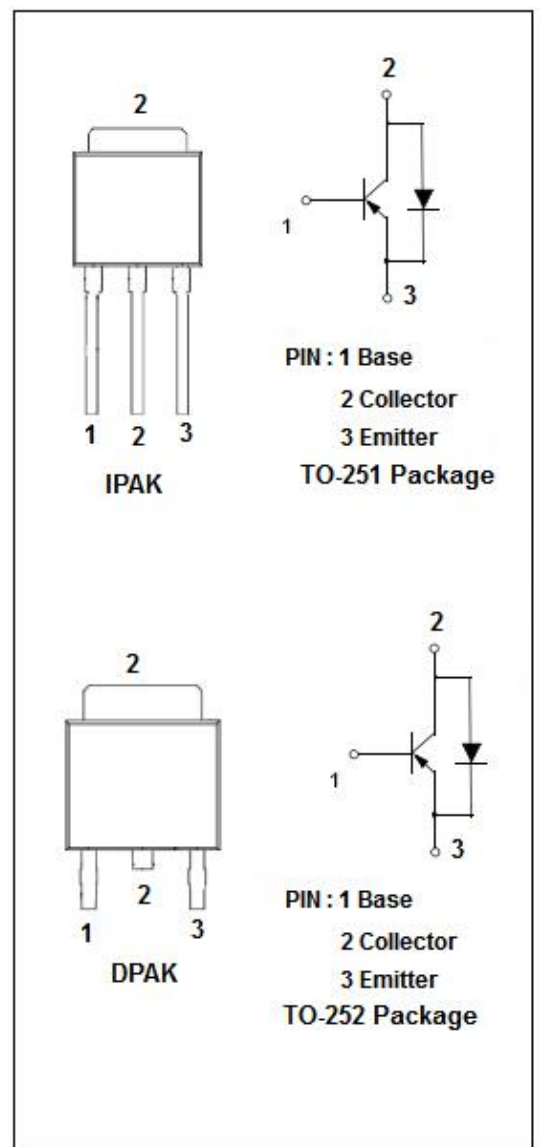
- High DC current gain
- Built-in a damper diode at E-C
- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, “-1” suffix)
- DPAK for surface mount applications
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Power amplifier

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	-40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-25	V
V <sub>EBO</sub>	Emitter-Base Voltage	-8	V
I <sub>c</sub>	Collector Current-Continuous	-5	A
I <sub>c</sub>	Collector Current-Pulse	-10	A
P <sub>c</sub>	Total Power Dissipation @ T <sub>a</sub> =25°C	1.4	W
P <sub>c</sub>	Total Power Dissipation @ T <sub>c</sub> =25°C	12.5	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



**isc Silicon PNP Power Transistor****KSH210****ELECTRICAL CHARACTERISTICS**T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA; I <sub>B</sub> = 0	-25			V
V <sub>CE(sat)-1*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> =- 0.5A; I <sub>B</sub> = -50mA			-0.3	V
V <sub>CE(sat)-2*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> =- 2.0A; I <sub>B</sub> = -200mA			-0.75	V
V <sub>CE(sat)-3*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -5A; I <sub>B</sub> = -1A			-1.8	V
V <sub>BE(sat)*</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -5A; I <sub>B</sub> = -1A			-2.5	V
V <sub>BE(on)*</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -2A; V <sub>CE</sub> =-1V			-1.6	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> =- 40V; I <sub>E</sub> = 0			-100	nA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> =- 8V; I <sub>C</sub> = 0			-100	nA
h <sub>FE1*</sub>	DC Current Gain	I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -1V	70			
h <sub>FE2*</sub>	DC Current Gain	I <sub>C</sub> = -2A; V <sub>CE</sub> = -1V	45		180	
h <sub>FE3*</sub>	DC Current Gain	I <sub>C</sub> = -5A; V <sub>CE</sub> = -2V	10			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -0.1A; V <sub>CE</sub> = -10V		65		MHz
C <sub>ob</sub>	Collector output capacitance	V <sub>CB</sub> =-10V ,I <sub>E</sub> =0,f=1MHz		120		pF

\*:Pulse test PW≤300us,duty cycle≤2%

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**Outline Drawing**

