

## isc Silicon PNP Power Transistor

KSH127

## DESCRIPTION

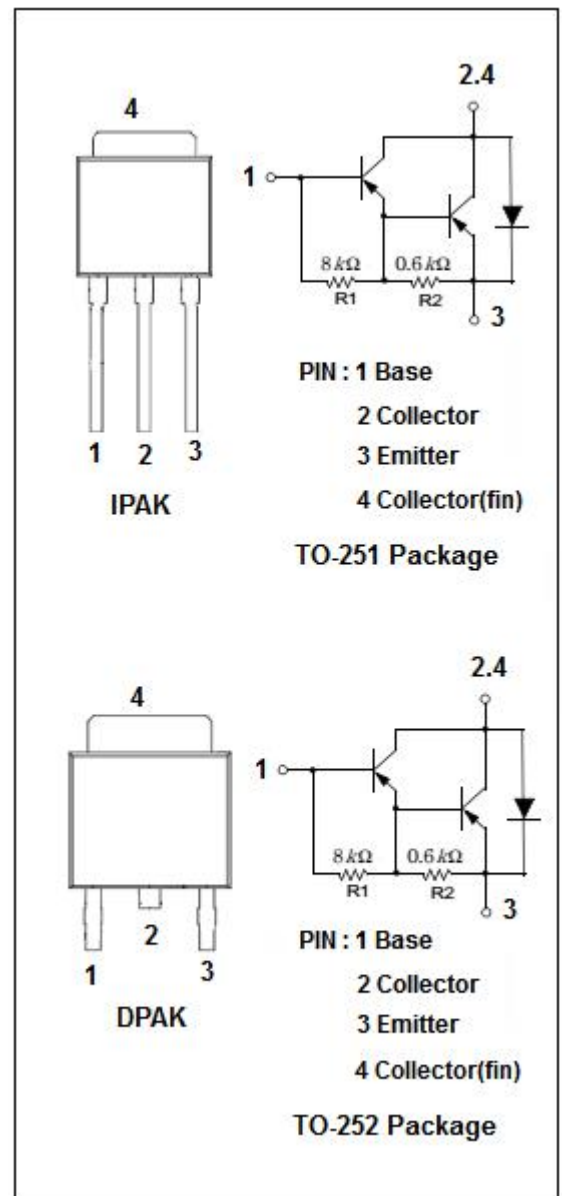
- High DC current gain
- Built-in a damper diode at E-C
- Electrically similar to popular TIP127
- DPAK for surface mount applications
- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, “-I” suffix)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for general purpose amplifier and low speed switching applications.

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	-8	A
$I_{CP}$	Collector Current-Pulse	-16	A
$P_C$	Collector Power Dissipation $T_a=25^{\circ}\text{C}$	1.75	W
$P_C$	Collector Power Dissipation $T_C=25^{\circ}\text{C}$	20	W
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



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## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

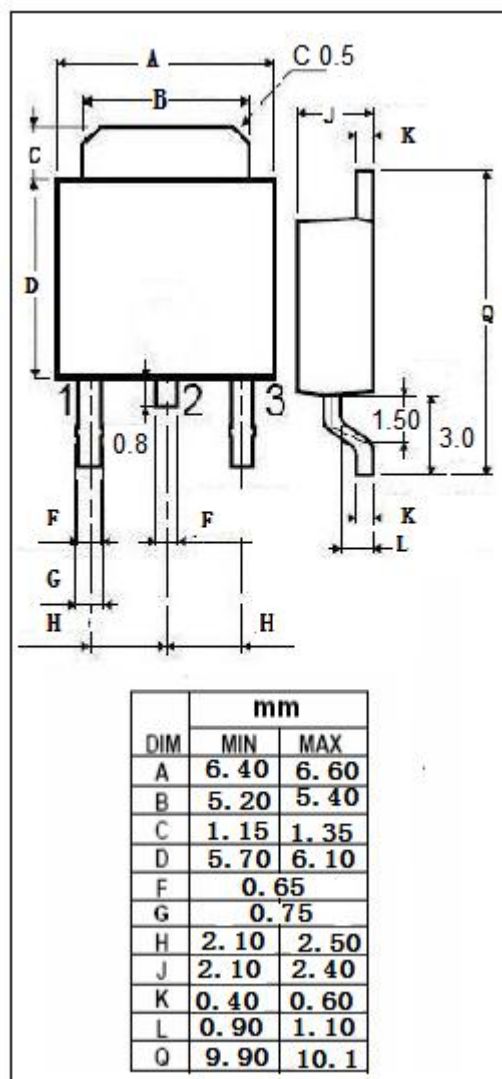
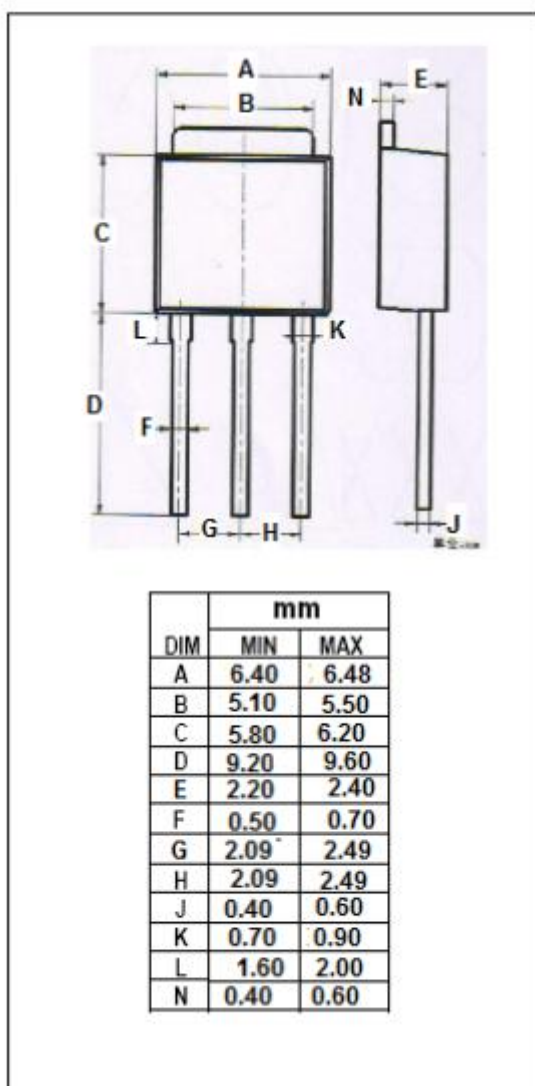
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)</sub> -1*	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -4A; I <sub>B</sub> = -16mA			-2.0	V
V <sub>CE(sat)</sub> -2*	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -8A; I <sub>B</sub> = -80mA			-4.0	V
V <sub>BE(sat)</sub> *	Base-Emitter Saturation Voltage	I <sub>C</sub> =-8A; I <sub>B</sub> = -80mA			-4.5	V
V <sub>BE(on)</sub> *	Base-Emitter On Voltage	I <sub>C</sub> = -4A; V <sub>CE</sub> = -4V			-2.8	V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =-30mA; I <sub>B</sub> = 0	-100			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -100V; I <sub>E</sub> = 0			-10	uA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-2	mA
h <sub>FE-1</sub> *	DC Current Gain	I <sub>C</sub> = -4A; V <sub>CE</sub> = -4V	1K		12K	
h <sub>FE-2</sub> *	DC Current Gain	I <sub>C</sub> = -8A; V <sub>CE</sub> = -4V	100			
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1.0MHz		300		pF

\*:Pulse test PW≤300us,duty cycle≤2%

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## Outline Drawing



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