

**isc Silicon NPN Power Transistor**
**KSD1588**
**DESCRIPTION**

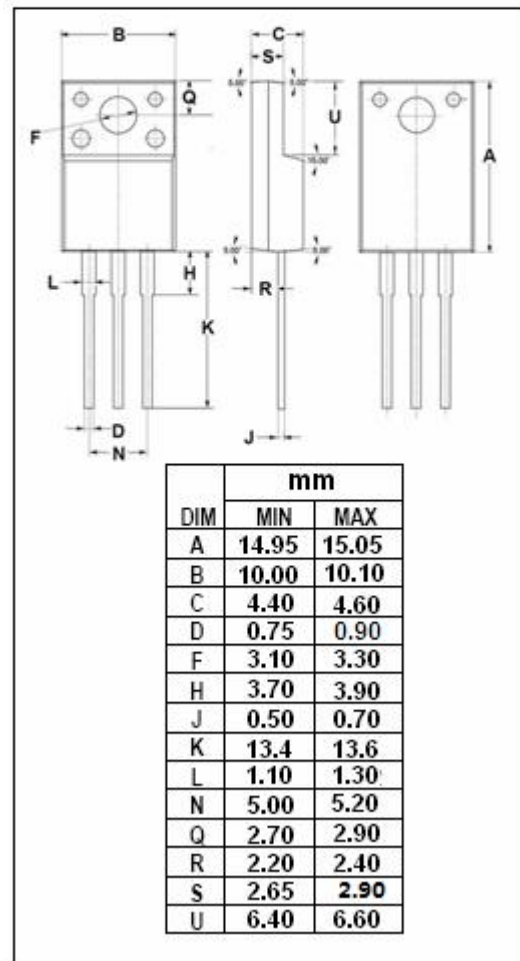
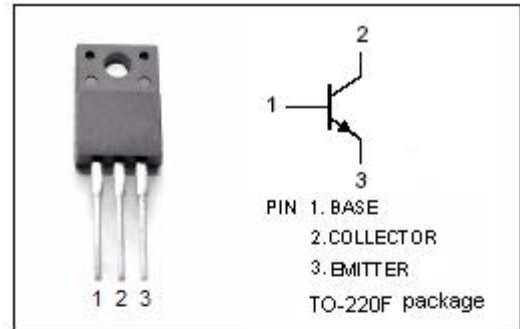
- Low Collector Saturation Voltage
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 60V$  (Min)
- Complement to Type KSB1097
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for power amplifier applications.

**ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ C$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	7	A
$I_B$	Base Current-Continuous	3.5	A
$P_C$	Collector Power Dissipation @ $T_c = 25^\circ C$	30	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



**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> = 50mA ; I <sub>B</sub> = 0	60			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>c</sub> = 5A; I <sub>B</sub> = 0.5A			0.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>c</sub> = 5A; I <sub>B</sub> = 0.5A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 800V; I <sub>E</sub> = 0			10	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			10	μA
h <sub>FE-1</sub>	DC Current Gain	I <sub>c</sub> = 3A; V <sub>CE</sub> = 1V	40		200	
h <sub>FE-2</sub>	DC Current Gain	I <sub>c</sub> = 5A; V <sub>CE</sub> = 1V	20			

**◆ h<sub>FE</sub> classifications**

R	O	Y
40-80	80-120	100-200

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