

# isc Silicon NPN Power Transistor

KSD880

## DESCRIPTION

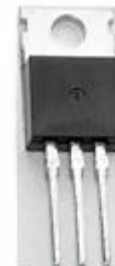
- Collector-Emitter sustaining Voltage  
:  $V_{CEO}=60V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to KSB834
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

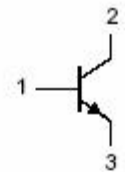
- Linear and switching industrial applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	3	A
$I_B$	Base Current- Continuous	0.3	A
$P_C$	Total Power Dissipation @ $T_C=25^\circ\text{C}$	30	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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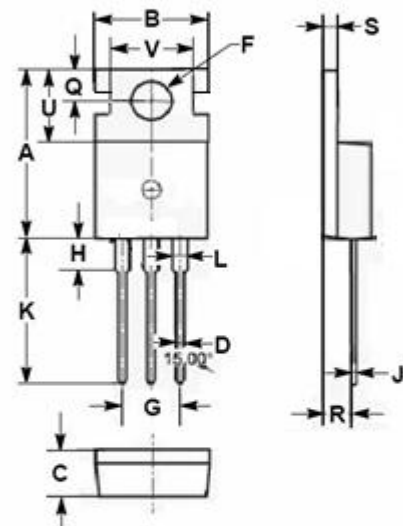


PIN 1. BASE

2. COLLECTOR

3. EMITTER

TO-220C package



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

**isc Silicon NPN Power Transistor****KSD880****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(sus)</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> = 3A; I <sub>B</sub> = 0.3A			1	V
V <sub>BE(on)</sub>	Base-Emitter OnVoltage	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 5V			1	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 60V ; I <sub>E</sub> = 0			100	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> =7V; I <sub>C</sub> = 0			100	μA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V	60		300	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> =3A ; V <sub>CE</sub> =5V	20			

**◆ h<sub>FE-1</sub> Classifications**

O	Y	G
60-120	100-200	150-300

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