

**isc Silicon PNP Power Transistor**
**KSE210**
**DESCRIPTION**

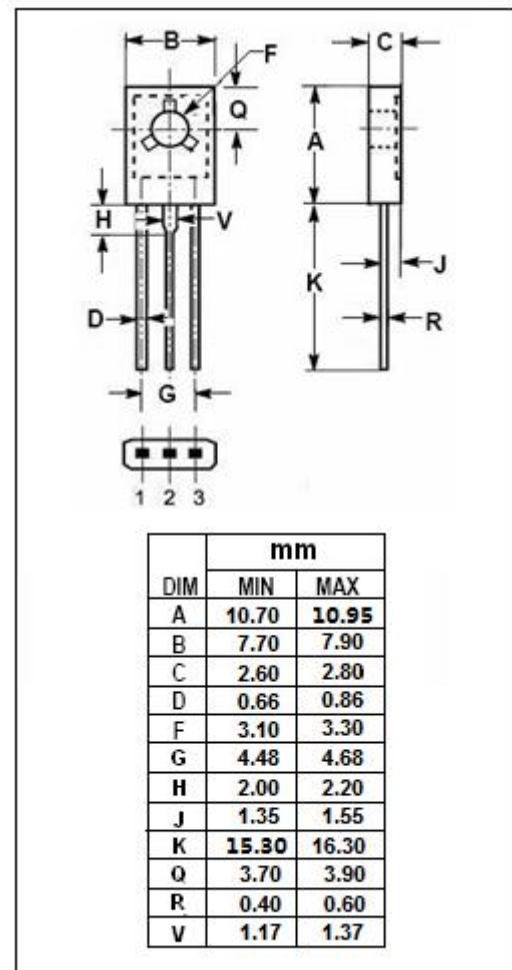
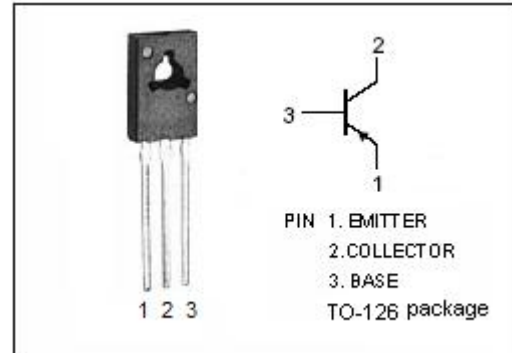
- High Collector Current- $I_C = -5A$
- Low Saturation Voltage -  
:  $V_{CE(sat)} = -0.3V(\text{Max}) @ I_C = -0.5A, I_B = -50mA$
- Good Linearity of  $h_{FE}$
- Complement to Type KSE200
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Suited for watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

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

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
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	15	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$



**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> = -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> = -2A; I <sub>B</sub> = -0.2A			-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 V <sub>CB</sub> = -40V; I <sub>E</sub> = 0; T <sub>C</sub> = 125°C			-0.1 -100	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -8V; I <sub>C</sub> = 0			-0.1	μA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -1V	70			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A; V <sub>CE</sub> = -1V	45		180	
h <sub>FE-3</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>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V, f <sub>test</sub> = 0.1MHz			120	pF

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