

### **isc Silicon NPN Power Transistor**

# KTC2202

#### DESCRIPTION

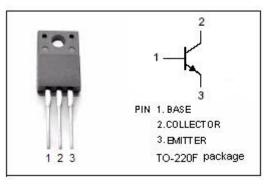
- Collector-Emitter Breakdown Voltage-
- : V<sub>(BR)CEO</sub>= 400V(Min)
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

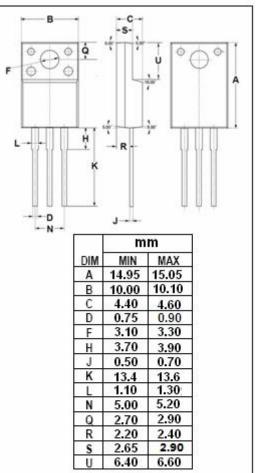
#### APPLICATIONS

- Switching regulator application.
- High voltage switching application.
- High speed DC-DC converter application.

#### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	500	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	400	V	
V <sub>EBO</sub>	Emitter-Base Voltage	7	V	
lc	Collector Current-Continuous	8	A	
lв	Base Current-Continuous	3	A	
Pc	Collector Power Dissipation @ Tc=25°C	30	W	
TJ	Junction Temperature	150	°C	
T <sub>stg</sub>	Storage Temperature Range	-65~150	°C	





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#### **ELECTRICAL CHARACTERISTICS**

 $T_{\text{C}}\text{=}25^{\circ}\!\!\!\!\!\mathrm{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 1mA; I <sub>E</sub> = 0	500			V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA; I <sub>B</sub> = 0	400			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	7			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 0.3A			1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 0.3A			2.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 400V ; I <sub>E</sub> = 0			100	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 7V ; I <sub>C</sub> = 0			1	mA
h <sub>FE</sub>	DC Current Gain	Ic= 3A ; V <sub>CE</sub> = 5V	10			

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