

**isc Silicon PNP Power Transistor**

**2SA2210**

**DESCRIPTION**

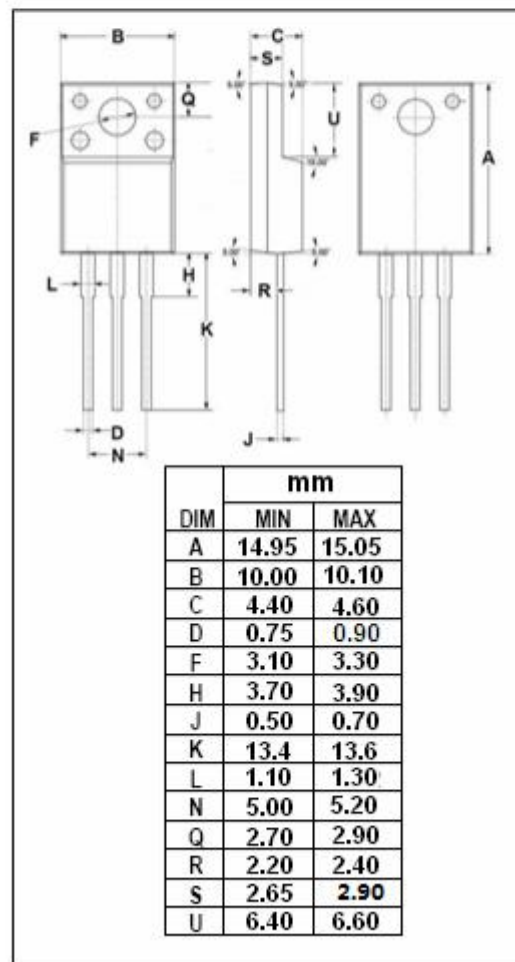
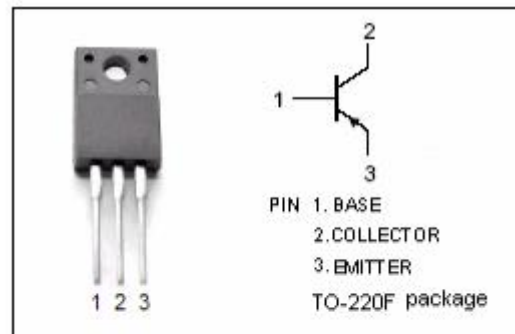
- Large current capacitance
- High-speed switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- relay drivers, lamp drivers, motor drivers

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V
I <sub>C</sub>	Collector Current-Continuous	-20	A
I <sub>CM</sub>	Collector Current-Peak	-25	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	30	W
	Collector Power Dissipation @ T <sub>a</sub> =25°C	2	
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°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>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -350mA			-0.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -350mA			-1.2	V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA; I <sub>B</sub> = 0	-50			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -100uA; I <sub>C</sub> = 0	-6			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -40V; I <sub>E</sub> = 0			-10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> = 0			-10	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -1A; V <sub>CE</sub> = -2V	200		560	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1.0MHz		215		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -1A; V <sub>CE</sub> = -10V		140		MHz

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