

### INCHANGE SEMICONDUCTOR

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

# 2N6130

#### DESCRIPTION

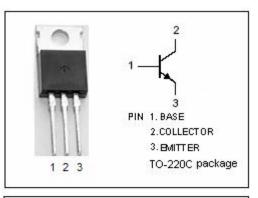
- DC Current Gain-
- : h<sub>FE</sub> = 20-100@ I<sub>C</sub>= 2.5A
- Collector-Emitter Sustaining Voltage-
- : V<sub>CEO(SUS)</sub> = 60V(Min)
- Complement to Type 2N6133
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

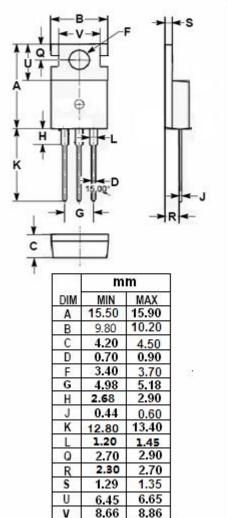
ABSOLUTE MAYIMUM PATINGS/T. -25m

### APPLICATIONS

• Designed for use in power amplifier and switching circuits applications

SYMBOL	PARAMETER	VALUE	UNIT	
Vсво	Collector-Base Voltage	60	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V	
V <sub>EBO</sub>	Emitter-Base Voltage	5	V	
lc	Collector Current-Continuous	7	A	
I <sub>B</sub>	Base Current	2	A	
Pc	Collector Power Dissipation $T_c=25^{\circ}C$	50	W	
Tj	Junction Temperature	150	ĉ	
T <sub>stg</sub>	Storage Temperature Range	-65~150	°C	





### isc website: <u>www.iscsemi.com</u>



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### **ELECTRICAL CHARACTERISTICS**

#### T<sub>c</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	МАХ	UNIT
Vceo(sus)	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 30mA; I <sub>B</sub> = 0	60		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 7A; I <sub>B</sub> = 1.4A		1.4	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 7A; V <sub>CE</sub> = 4V		3.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 60V; I <sub>E</sub> = 0		0.1	mA
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 60V; I <sub>B</sub> = 0		1.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0		1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 2.5A ; V <sub>CE</sub> = 4V	20	100	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 7A ; V <sub>CE</sub> = 4V	5		
f⊤	Current-Gain—Bandwidth Product	Ic= 0.5A ; V <sub>CE</sub> = 4V	2.5		MHz

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