

# **ISC Silicon NPN Power Transistor**

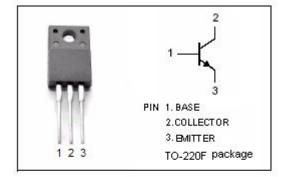
2SC6082

### **DESCRIPTION**

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

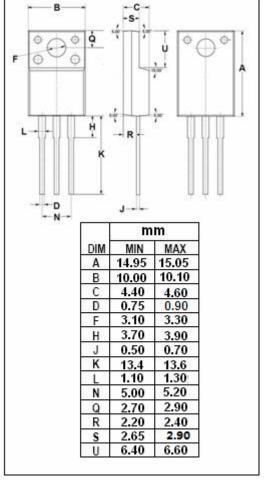
## **APPLICATIONS**

• High speed switching applications



# ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	60	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V	
V <sub>EBO</sub>	Emitter-Base Voltage	6	V	
Ic	Collector Current- Continuous	15	А	
I <sub>B</sub>	Base Current- Continuous	3	А	
I <sub>CP</sub>	Collector Current-Pulse	20	А	
P <sub>C</sub>	Collector Power Dissipation @ T <sub>a</sub> =25℃	2	W	
	Collector Power Dissipation @ T <sub>C</sub> =25℃	23		
TJ	Junction Temperature	150	$^{\circ}$ C	
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C	





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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 7.5A; I <sub>B</sub> = 0.375A			0.4	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = 7.5A; I <sub>B</sub> = 0.375A			1.2	V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = 40V; I <sub>E</sub> = 0			10	μА
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 330mA; V <sub>CE</sub> = 2V	200		560	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 10A; V <sub>CE</sub> = 2V	50			
t <sub>stg</sub>	Storage Time	1 - 5		560		ns
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 5A, I <sub>B1</sub> = 0.25A; I <sub>B2</sub> = -0.25A		37		ns

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