

# isc Silicon PNP Power Transistor

## 2SB947

### DESCRIPTION

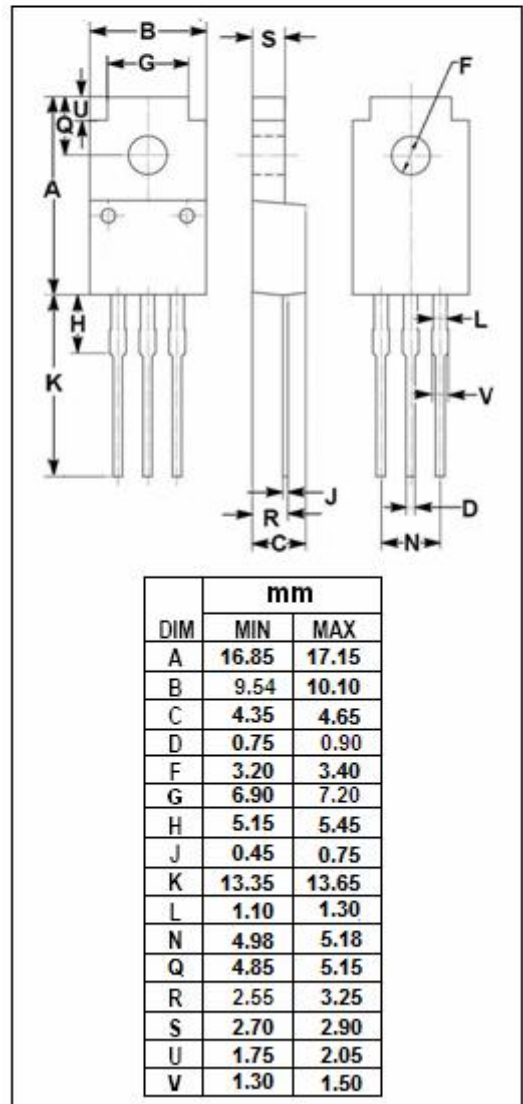
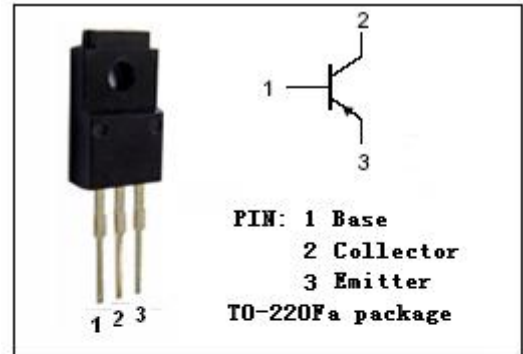
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = -0.6V(Max)@I_C = -7A$
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Designed for low-voltage switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-20	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-10	A
$I_{CM}$	Collector Current-Peak	-15	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ C$	2	W
	Collector Power Dissipation @ $T_c=25^\circ C$	35	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



**isc Silicon PNP Power Transistor****2SB947****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	-20			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -0.23A			-0.6	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -0.23A			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -40V; I <sub>E</sub> = 0			-50	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-50	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -0.1A; V <sub>CE</sub> = -2V	45			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A; V <sub>CE</sub> = -2V	90		260	

**◆ h<sub>FE-1</sub> Classifications**

Q	P
90-180	130-260

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