

isc Silicon PNP Power Transistor

2SB947

DESCRIPTION

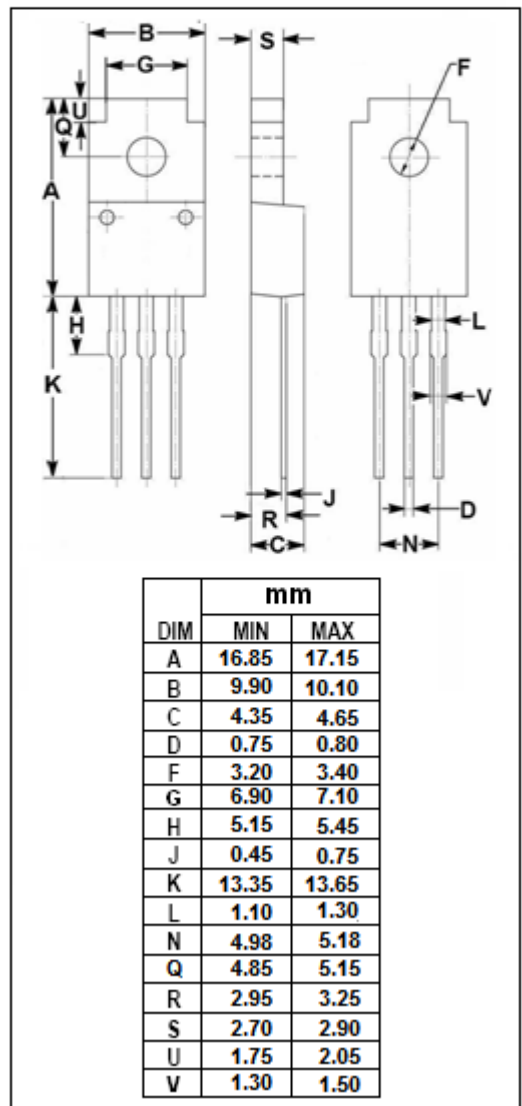
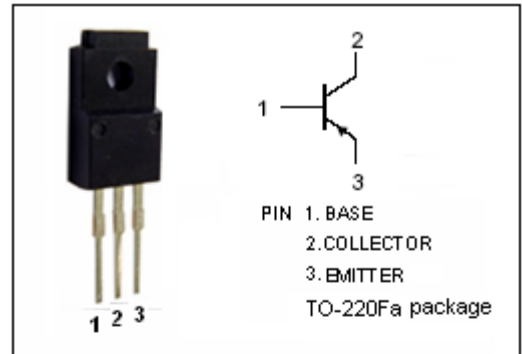
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -0.6V(\text{Max}) @ I_C = -7A$
- High Speed Switching

APPLICATIONS

- Designed for low-voltage switching applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

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 @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	35	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon PNP Power Transistor**2SB947****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -10mA; I _B = 0	-20			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -7A; I _B = -0.23A			-0.6	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -7A; I _B = -0.23A			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -40V; I _E = 0			-50	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-50	μ A
h _{FE-1}	DC Current Gain	I _C = -0.1A; V _{CE} = -2V	45			
h _{FE-2}	DC Current Gain	I _C = -2A; V _{CE} = -2V	90		260	
f _T	Current-Gain—Bandwidth Product	I _C =-0.5A; V _{CE} = -10V; f _{test} =10MHz		150		MHz

Switching times

t _{on}	Turn-on Time	I _C = -2A, I _{B1} = -I _{B2} = -66mA		0.1		μ s
t _{stg}	Storage Time			0.5		μ s
t _f	Fall Time			0.1		μ s

◆ **h_{FE-1} Classifications**

Q	P
90-180	130-260