

isc Silicon PNP Power Transistor

2SB1605

DESCRIPTION

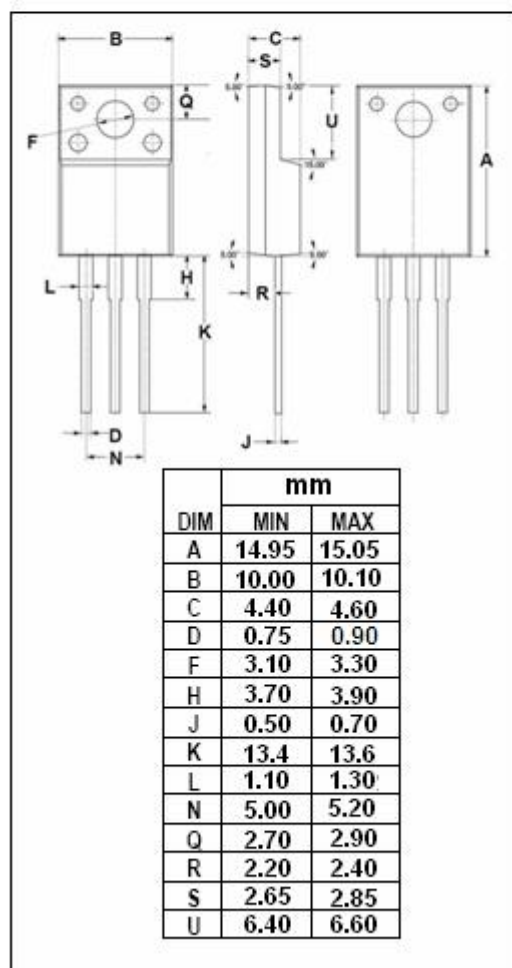
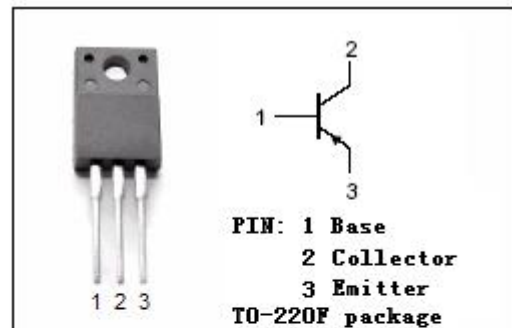
- High-speed Switching
- Low Collector to Emitter Saturation Voltage
: $V_{CE(sat)} = -1.2V(\text{Max.}) @ I_C = -3A$
- Full-pack Package With Outstanding Insulation,
Which Can Be Installed to The Heat Sink With One Screw
- Minimum Lot-to-Lot variations for robust device
performance and reliable operation

APPLICATIONS

- Designed for low-freuquency power switching and general
purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-3	A
I_{CM}	Collector Current-Peak	-5	A
P_C	Collector Power Dissipation @ $T_a=25^{\circ}C$	2	W
	Collector Power Dissipation @ $T_C=25^{\circ}C$	35	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -30\text{mA}$, $I_B = 0$	-60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}$; $I_B = -0.375\text{A}$			-1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -3\text{A}$; $V_{CE} = -4\text{V}$			-1.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -60\text{V}$; $I_E = 0$			-0.2	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -30\text{V}$; $I_B = 0$			-0.3	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-1	mA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -4\text{V}$	70		250	
h_{FE-2}	DC Current Gain	$I_C = -3\text{A}$; $V_{CE} = -4\text{V}$	10			
f_T	Current-Gain—Bandwidth Product	$I_E = 0.5\text{A}$; $V_{CE} = -10\text{V}$; $f = 10\text{MHz}$		30		MHz

Switching Times

t_{on}	Turn-on Time	$I_C = -1\text{A}$; $I_{B1} = -I_{B2} = -0.1\text{A}$,		0.5		μs
t_{stg}	Storage Time			1.2		μs
t_f	Fall Time			0.3		μs

◆ h_{FE-1} Classifications

Q	P
70-150	120-250

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