

isc Silicon NPN Power Transistor

BUL58B

DESCRIPTION

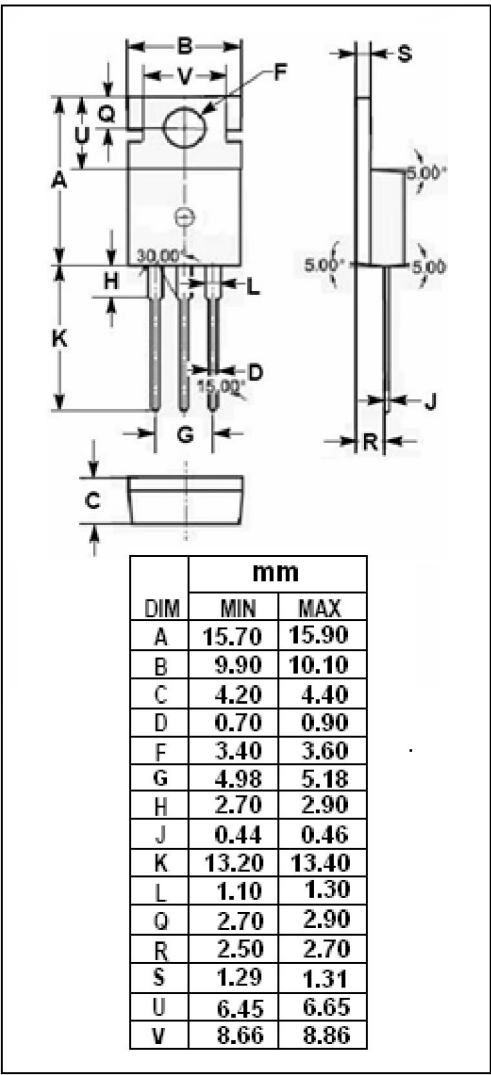
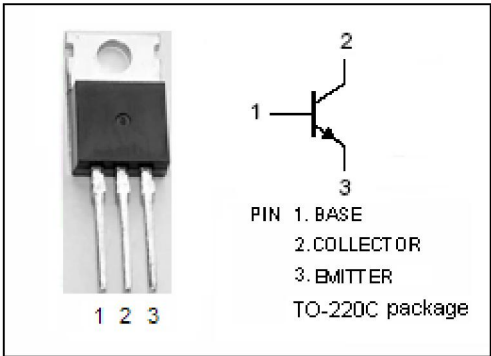
- Collector–Emitter Sustaining Voltage
: $V_{CEO(SUS)} = 100V(\text{Min.})$
- Collector Saturation Voltage
: $V_{CE(sat)} = 0.2V(\text{Max}) @ I_C = 1A$
- High Speed Switching

APPLICATIONS

- Designed for use in electronic ballast applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	12	A
I_{CM}	Collector Current-peak	17	A
I_B	Base Current-Continuous	4	A
P_C	Collector Power Dissipation $T_C=25^{\circ}C$	50	W
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**BUL58B****ELECTRICAL CHARACTERISTICS****T_C =25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA; I _B = 0	100			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	250			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	10			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			0.2	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 0.3A			0.6	V
V _{CE(sat)-3}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 0.6A			1.5	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 0.3A			1.1	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 0.6A			1.4	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 80V; I _B = 0			100	μ A
I _{CBO}	Collector Cutoff Current	V _{CB} = 250V; I _E = 0 V _{CB} = 250V; I _E = 0, T _C = 125°C			10 100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 9V; I _C = 0 V _{EB} = 9V; I _C = 0, T _C = 125°C			10 100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.3A; V _{CE} = 4V	30		80	
h _{FE-2}	DC Current Gain	I _C = 3A; V _{CE} = 4V	25		60	
h _{FE-3}	DC Current Gain	I _C = 5A; V _{CE} = 1V	5			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1MHz		44		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.2A; V _{CE} = 4V		20		MHz