

isc Silicon NPN Power Transistor
2SC1678
DESCRIPTION

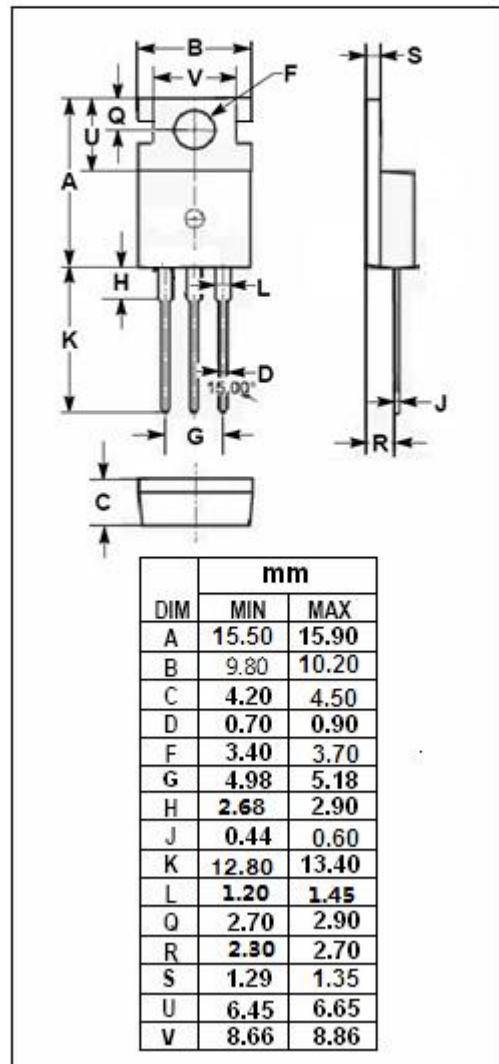
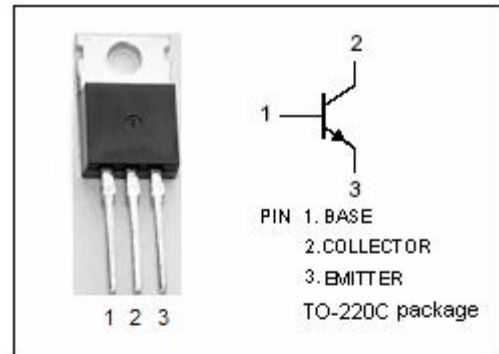
- Silicon NPN planar type
- High breakdown voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Medium power amplifier applications
- Driver stage amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	65	V
V _{CEO}	Collector-Emitter Voltage	65	V
V _{EBO}	Emitter-Base Voltage	4	V
I _C	Collector Current-Continuous	3.0	A
P _C	Collector Power Dissipation @ T _a =25°C	1.5	W
	Collector Power Dissipation @ T _c =25°C	10	
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



isc Silicon NPN Power Transistor**2SC1678****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	65			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 50mA			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 30V ; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			1.0	μ A
h _{FE-1}	DC Current Gain	I _C = 0.5A ; V _{CE} = 5V	15			
h _{FE-2}	DC Current Gain	I _C = 1.5A ; V _{CE} = 5V	10			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1MHz		30	45	pF
f _T	Current-Gain—Bandwidth Product	I _C = 100mA; V _{CE} = 5V	100			MHz

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