

isc Silicon NPN Power Transistor

2SC3175

DESCRIPTION

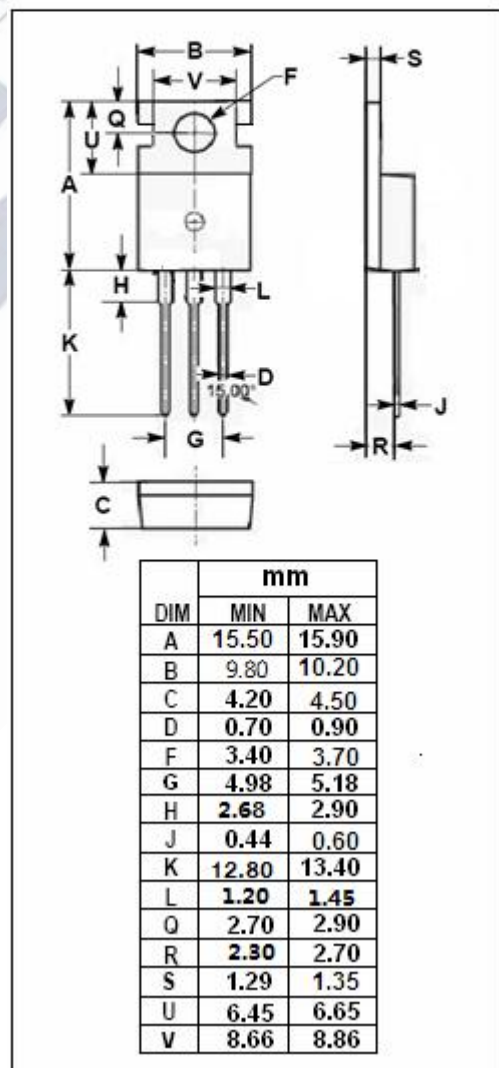
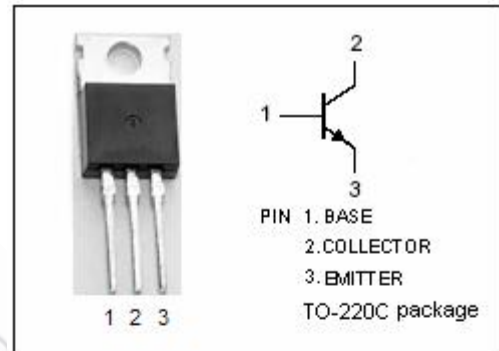
- Low Collector Saturation Voltage
- High switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Especially suited for use in high definition CRT display($V_{CC}=12$ to $24V$)

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Pulse	12	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**2SC3175****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	200			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A ; I _B = 0.5A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A ; I _B = 0.5A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 400V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} =6V ; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 1V	15			
h _{FE-2}	DC Current Gain	I _C = 5A ; V _{CE} = 1V	10		50	
f _T	Current-Gain—Bandwidth Product	I _E = -500mA ; V _{CE} = 10V	10	40		MHz