

isc Silicon NPN Power Transistor
2SC1975
DESCRIPTION

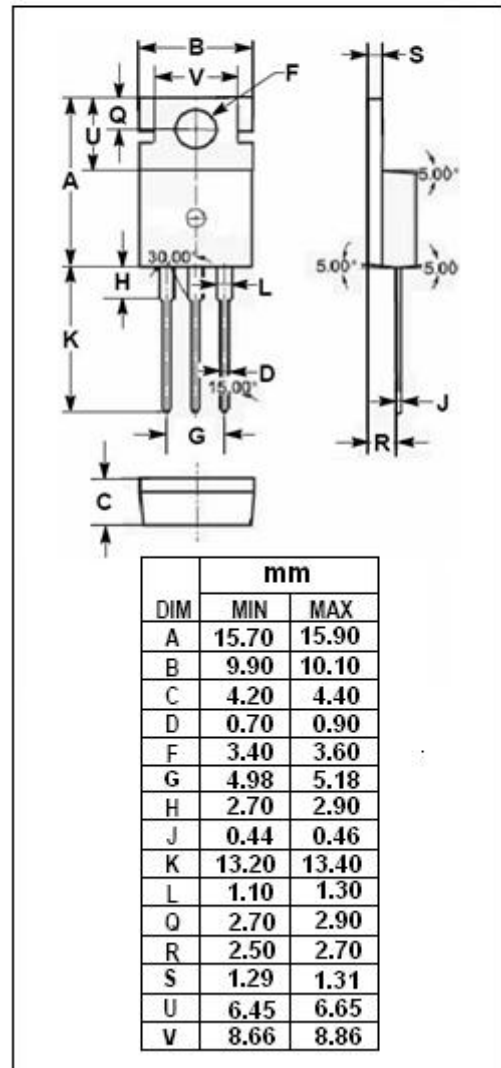
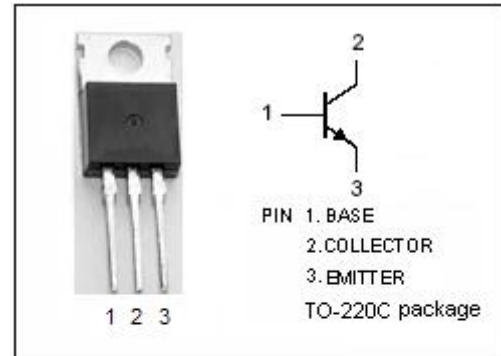
- Collector-Base Breakdown Voltage
: $V_{(BR)CBO}=160V(\text{Min})$
- Withstands worst overload conditions.
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Design for used in transceiver power output applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CER}	Collector-Emitter Voltage	90	V
V_{EBO}	Emitter-Base Voltage	5	V
I_{CM}	Collector Current	3	A
P_C	Total Power Dissipation @ $T_c=25^\circ\text{C}$	12	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CBO}	Collector-Base Breakdown Voltage	I _C =1mA ; I _B = 0	120			V
V _{CER}	Collector- Emitter Breakdown Voltage	I _C =2mA ; R _{BE} =100 Ω	90			V
V _{EBO}	Emitter-Base Breakdown Voltage	I _E =10uA ; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.2A			1	V
I _{CEO}	Collector Cutoff Current	V _{CB} = 40V ; I _E = 0			1.0	μ A
h _{FE}	DC Current Gain	I _C =1A ; V _{CE} =5V	50		200	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} =10V; f _{test} = 1MHz		60		pF
f _T	Current-Gain—Bandwidth Product	I _C =0.5A;V _{CE} =5V		80		MHz
P _O	Output power	V _{CC} =13.5V;f=27MHz;Pin=0.2W		1		W

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