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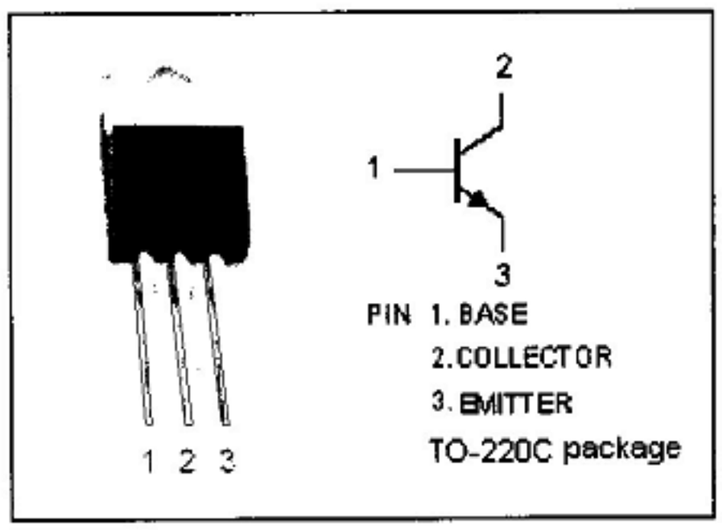
Silicon NPN Power Transistor

2SC1975



PIN 1. BASE
2. COLLECTOR
3. EMITTER
TO-220C package

DESCRIPTION

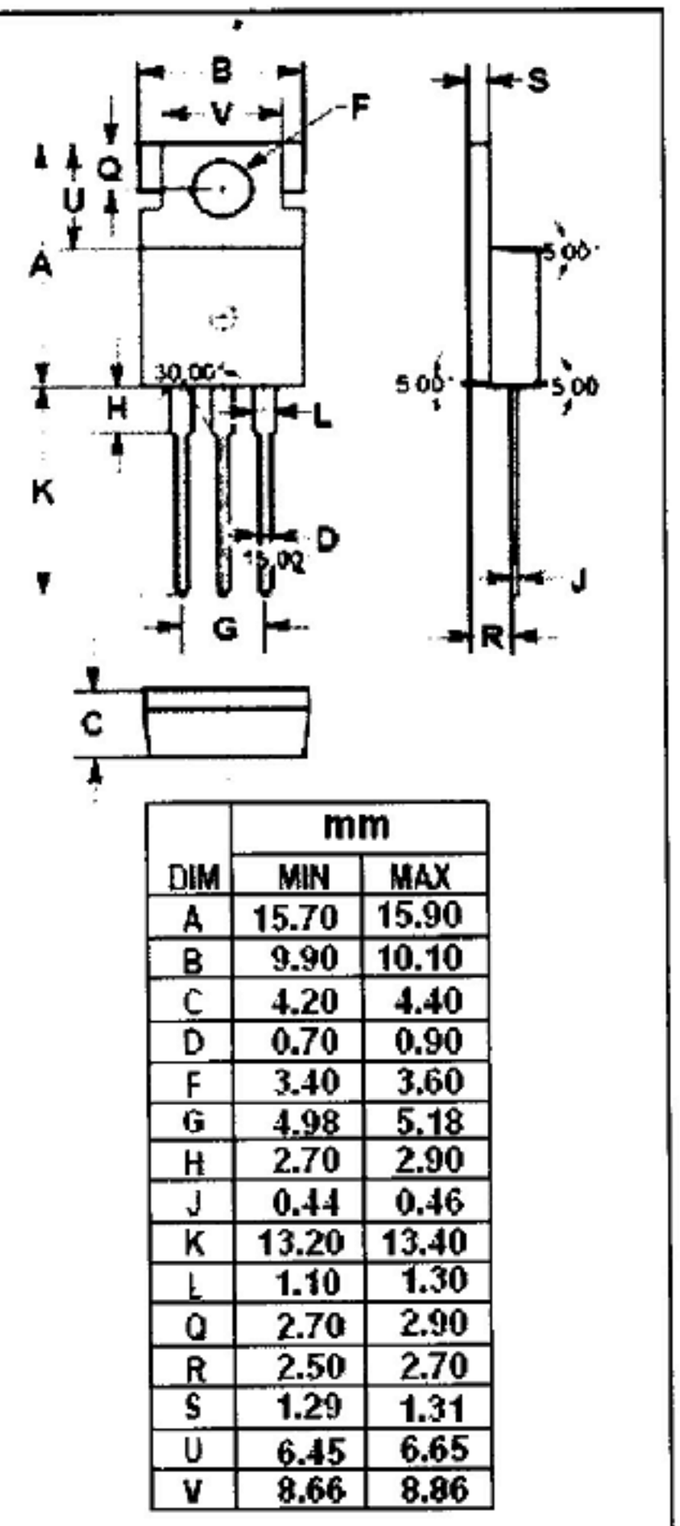
- Collector-Base Breakdown Voltage
  : $V_{(BR)CBO}$=160V(Min)
- Withstands worst overload conditions.

APPLICATIONS

- Design for used in transceiver power output applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	12	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

ELECTRICAL CHARACTERISTICS

T_C=25℃ 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}=100Ω	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	μA
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	Vcc=13.5V;f=27MHz;Pin=0.2W		1		W