

Silicon NPN Power Transistor

2SC3179

DESCRIPTION

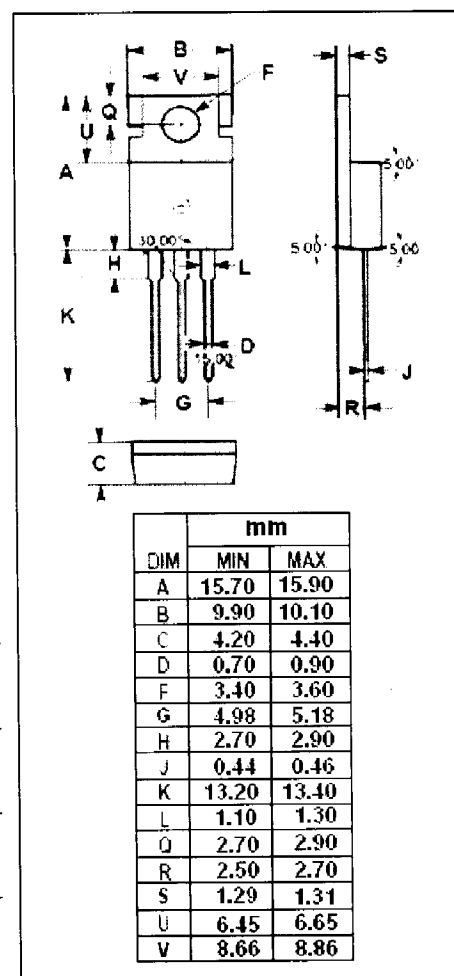
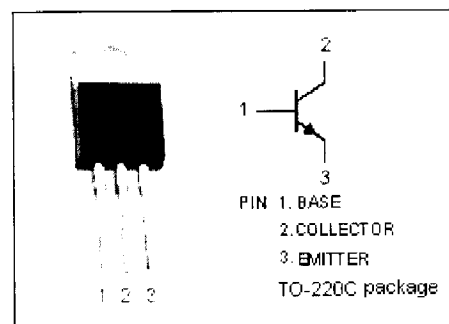
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min.})$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 0.6V(\text{Max.}) @ I_C = 2A$
- Complement to Type 2SA1262

APPLICATIONS

- Designed for audio and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	4	A
I_B	Base Current-Peak	1	A
P_C	Total Power Dissipation @ $T_C = 25^\circ\text{C}$	30	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

$T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=25\text{mA}; I_B=0$	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$			0.6	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=80\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}; I_C=0$			100	μA
h_{FE}	DC Current Gain	$I_C=1\text{A}; V_{CE}=4\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_E=-0.2\text{A}; V_{CE}=12\text{V}$		15		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		60		pF

Switching Times

t_{on}	Turn-on Time	$I_C=2\text{A}; R_L=10\Omega;$ $I_{B1}=-I_{B2}=0.2\text{A}, V_{CC}=20\text{V}$		0.2		μs
t_{stg}	Storage Time			1.9		μs
t_f	Fall Time			0.29		μs