

isc Silicon PNP Power Transistor
2SA1078
DESCRIPTION

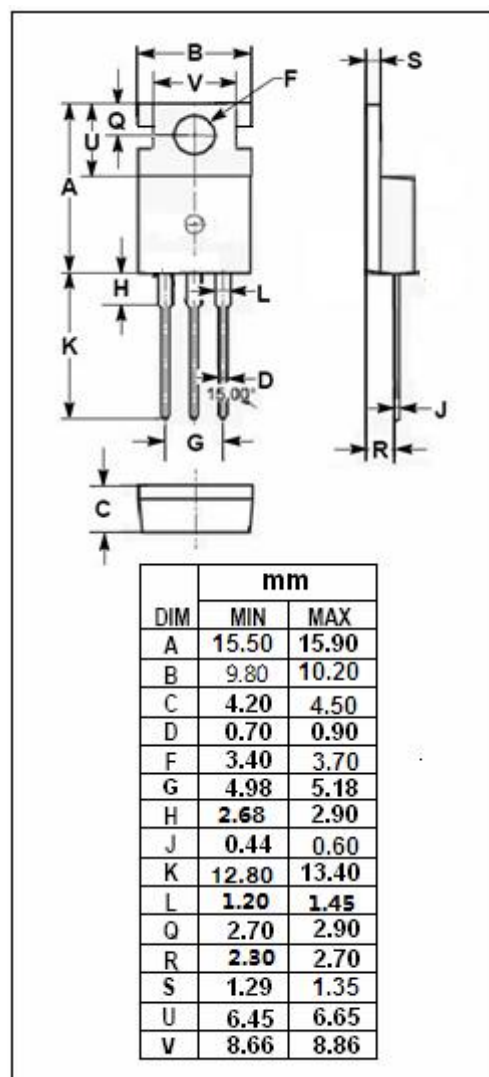
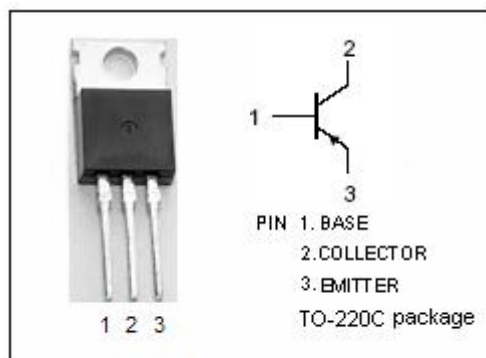
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -120V(\text{Min.})$
- Good Linearity of h_{FE}
- Wide Area of Safe Operation
- Complement to Type 2SC2528
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High frequency power amplifiers
- Audio power amplifiers and drivers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_c	Collector Current-Continuous	-2	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



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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	$I_C = -1\text{mA}; R_{BE} = \infty$	-120			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\ \mu\text{A}; I_E = 0$	-120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\ \mu\text{A}; I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -0.7\text{A}; I_B = -0.07\text{A}$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -0.7\text{A}; V_{CE} = -5\text{V}$			-1.7	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -120\text{V}; I_E = 0$			-1	μA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -120\text{V}; I_B = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-1	μA
h_{FE-1}	DC Current Gain	$I_C = -0.3\text{A}; V_{CE} = -5\text{V}$	60		350	
h_{FE-2}	DC Current Gain	$I_C = -0.7\text{A}; V_{CE} = -5\text{V}$	50			
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$		100		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -10\text{V}; f = 10\text{MHz}$		140		MHz

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