

isc Silicon PNP Power Transistor
2SB1144
DESCRIPTION

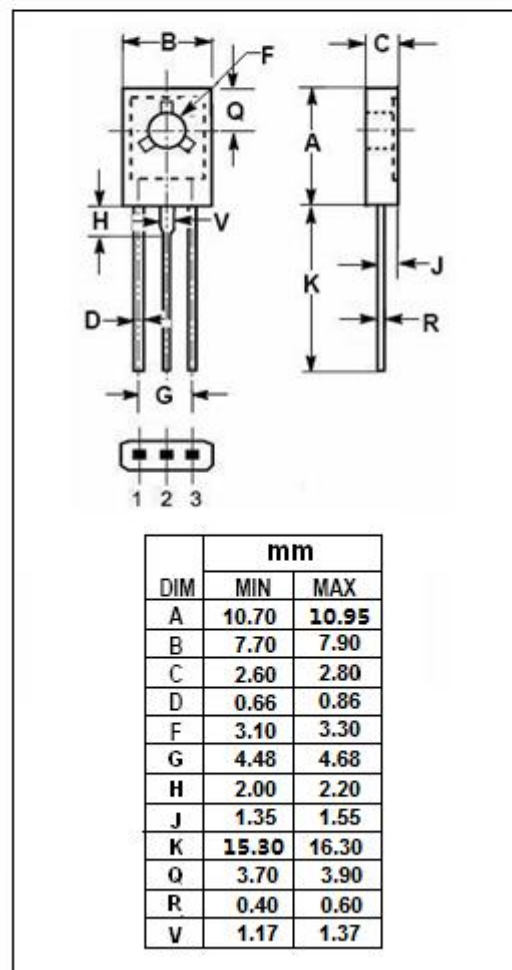
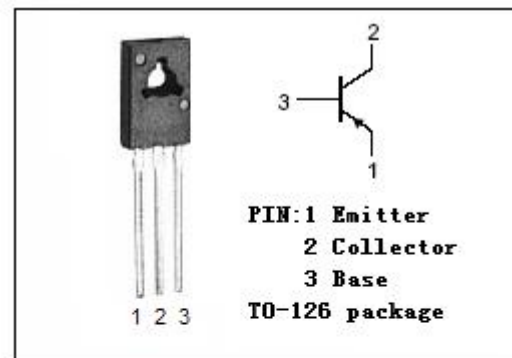
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.3V(\text{Max}) @ I_C = -0.5A$
- Wide Area of Safe Operation
- Complement to Type 2SD1684
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for 100V/1.5A Switching Applications

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	-100	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-1.5	A
I_{CP}	Collector Current-Pulse	-2	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	10	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.5	
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	$I_C = -10\text{mA}$; $I_B = 0$	-100			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -10\mu\text{A}$; $I_E = 0$	-120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}$; $I_C = 0$	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}$; $I_B = -50\text{mA}$			-0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -500\text{mA}$; $I_B = -50\text{mA}$			-1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}$; $I_E = 0$			-0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}$; $I_C = 0$			-0.1	μA
h_{FE-1}	DC Current Gain	$I_C = -0.1\text{A}$; $V_{CE} = -5\text{V}$	100		400	
h_{FE-2}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -5\text{V}$	30			

◆ h_{FE-1} Classifications

Q	S	T
100-200	140-280	200-400

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