

isc Silicon PNP Power Transistor

2SB1144

**DESCRIPTION**

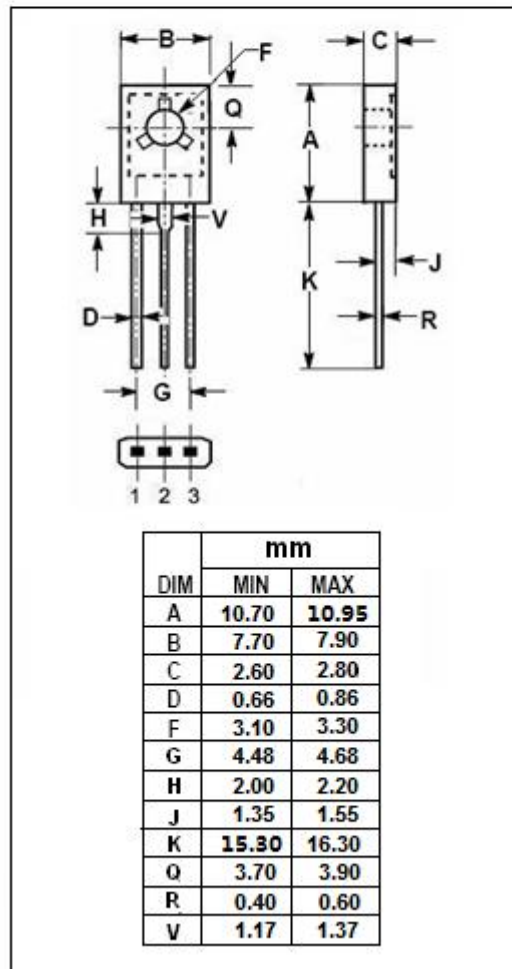
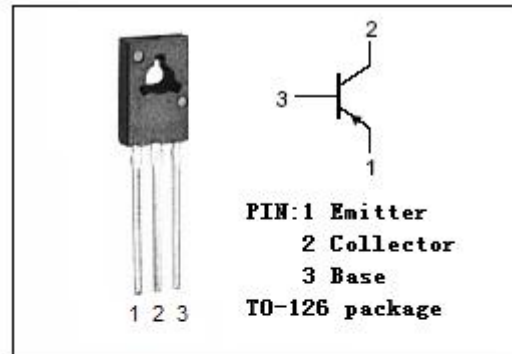
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -0.3V(\text{Max}) @ I_C = -0.5A$
- Wide Area of Safe Operation
- Complement to Type 2SD1684

**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	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SB1144****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	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -4\text{V}$ ; $I_C = 0$			-0.1	$\mu\text{A}$
$h_{FE-1}$	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			
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}$ ; $V_{CE} = -5\text{V}$		120		MHz
$C_{OB}$	Output Capacitance	$I_E = 0$ ; $V_{CB} = -10\text{V}$ , $f_{test} = 1\text{MHz}$		11		pF

◆  **$h_{FE-1}$  Classifications**

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