

## isc Silicon NPN Power Transistor

BD226/228/230

**DESCRIPTION**

- DC Current Gain-  
:  $h_{FE} = 40(\text{Min}) @ I_C = 0.15\text{A}$
- Complement to Type BD227/229/231

**APPLICATIONS**

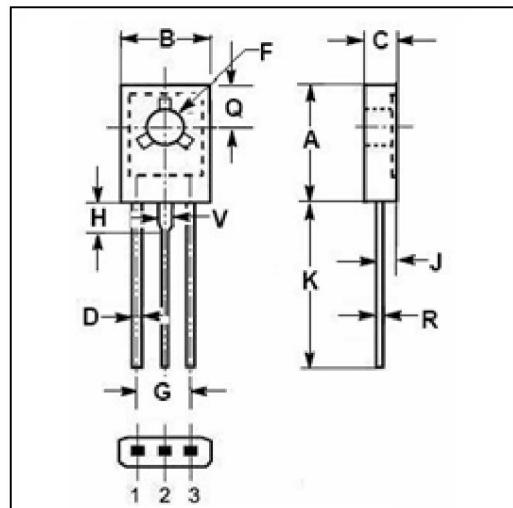
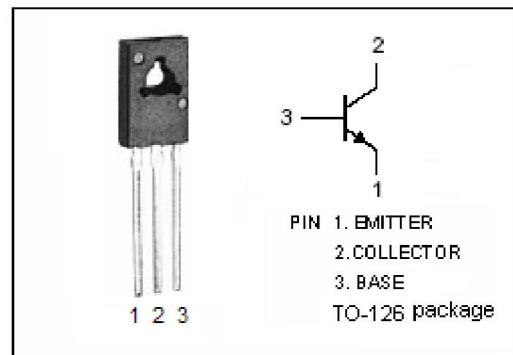
- Designed for use in driver stages in television circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	BD226	45
		BD228	60
		BD230	100
$V_{CEO}$	Collector-Emitter Voltage	BD226	45
		BD228	60
		BD230	80
$V_{CER}$	Collector-Emitter Voltage( $R_{BE}=1\text{k}\Omega$ )	BD226	45
		BD228	60
		BD230	100
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	1.5	A
$I_{CM}$	Collector Current-Peak	3.0	A
$P_c$	Collector Power Dissipation $@ T_c \leq 62^\circ\text{C}$	12.5	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th,j-c}$	Thermal Resistance,Junction to Case	7	$^\circ\text{C/W}$
$R_{th,j-a}$	Thermal Resistance,Junction to Ambient	100	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A	10.70	10.90
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	16.10	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 100\text{mA}; I_B = 0$	45			V
			60			
			80			
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}; I_B = 0.1\text{A}$			0.8	V
$V_{BE(\text{on})}$	Base-Emitter On Voltage	$I_C = 1\text{A}; V_{CE} = 2\text{V}$			1.3	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 30\text{V}; I_E = 0$ $V_{CB} = 30\text{V}; I_E = 0, T_C = 125^\circ\text{C}$			0.1 10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$			10	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = 5\text{mA}; V_{CE} = 2\text{V}$	25			
$h_{FE-2}$	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 2\text{V}$	25			
$h_{FE-3}$	DC Current Gain	$I_C = 0.15\text{A}; V_{CE} = 2\text{V}$	40		250	
$f_T$	Current-Gain—Bandwidth Product	$I_C = 50\text{mA}; V_{CE} = 5\text{V}$		125		MHz