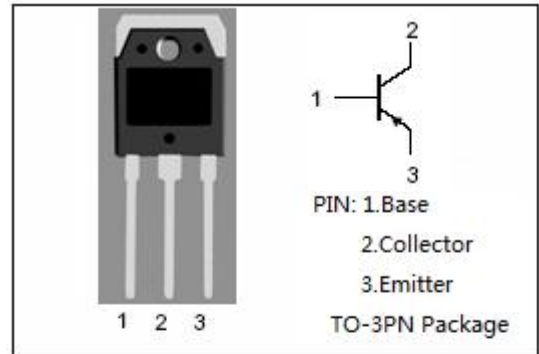


**isc Silicon PNP Power Transistor**
**BD746/A/B/C**
**DESCRIPTION**

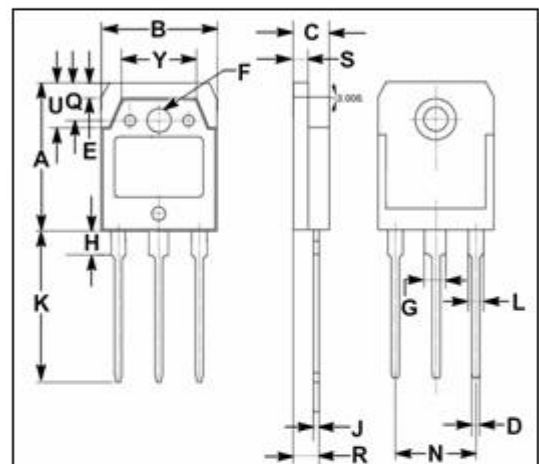
- Collector Current  $-I_C = -20A$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -45V(\text{Min})$ - BD746;  $-60V(\text{Min})$ - BD746A  
 $-80V(\text{Min})$ - BD746B;  $-100V(\text{Min})$ - BD746C
- Complement to Type BD745/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in general purpose power amplifier and switching applications


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

SYMBOL	PARAMETER	VALUE	UNIT	
$V_{CER}$	Collector-Emitter Voltage ( $R_{BE} = 100\Omega$ )	BD746	-50	V
		BD746A	-70	
		BD746B	-90	
		BD746C	-110	
$V_{CEO}$	Collector-Emitter Voltage	BD746	-45	V
		BD746A	-60	
		BD746B	-80	
		BD746C	-100	
$V_{EBO}$	Emitter-Base Voltage	-5	V	
$I_C$	Collector Current-Continuous	-20	A	
$I_{CM}$	Collector Current-Peak	-25	A	
$I_B$	Base Current	-7	A	
$P_C$	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	3.5	W	
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	115		
$T_J$	Junction Temperature	150	$^\circ\text{C}$	
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$	



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

**isc Silicon PNP Power Transistor**
**BD746/A/B/C**
**ELECTRICAL CHARACTERISTICS**

 T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	BD746	-45			V	
		BD746A	-60				
		BD746B	-80				
		BD746C	-100				
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -5A; I <sub>B</sub> = -0.5A			-1.0	V	
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -20A; I <sub>B</sub> = -5A			-3.0	V	
V <sub>BE(on)-1</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -5A; V <sub>CE</sub> = -4V			-1.0	V	
V <sub>BE(on)-2</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -20A; V <sub>CE</sub> = -4V			-3.0	V	
I <sub>CES</sub>	Collector Cutoff Current	BD746	V <sub>CE</sub> = -50V; V <sub>BE</sub> = 0 V <sub>CE</sub> = -50V; V <sub>BE</sub> = 0; T <sub>C</sub> = 125°C			-0.1 -5.0	mA
		BD746A	V <sub>CE</sub> = -70V; V <sub>BE</sub> = 0 V <sub>CE</sub> = -70V; V <sub>BE</sub> = 0; T <sub>C</sub> = 125°C			-0.1 -5.0	
		BD746B	V <sub>CE</sub> = -90V; V <sub>BE</sub> = 0 V <sub>CE</sub> = -90V; V <sub>BE</sub> = 0; T <sub>C</sub> = 125°C			-0.1 -5.0	
		BD746C	V <sub>CE</sub> = -110V; V <sub>BE</sub> = 0 V <sub>CE</sub> = -110V; V <sub>BE</sub> = 0; T <sub>C</sub> = 125°C			-0.1 -5.0	
I <sub>CEO</sub>	Collector Cutoff Current	BD746/A	V <sub>CE</sub> = -30V; I <sub>B</sub> = 0			-0.1	mA
		BD746B/C	V <sub>CE</sub> = -60V; I <sub>B</sub> = 0				
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> =0			-0.5	mA	
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1A; V <sub>CE</sub> = -4V	40				
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -5A; V <sub>CE</sub> = -4V	20		150		
h <sub>FE-3</sub>	DC Current Gain	I <sub>C</sub> = -20A; V <sub>CE</sub> = -4V	5				

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