

## INCHANGE SEMICONDUCTOR

# **isc** Silicon PNP Power Transistor

# BD240/A/B/C

### DESCRIPTION

- DC Current Gain -h<sub>FE</sub> = 40(Min)@ I<sub>C</sub>= -0.2A
- Collector-Emitter Sustaining Voltage-
- : V<sub>CEO(SUS)</sub> = -45V(Min)- BD240; -60V(Min)- BD240A -80V(Min)- BD240B; -100V(Min)- BD240C
- Complement to Type BD239/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### APPLICATIONS

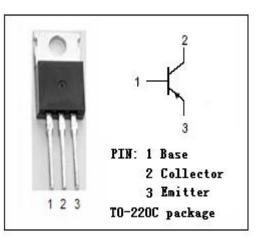
Designed for medium power linear and switching applicatio

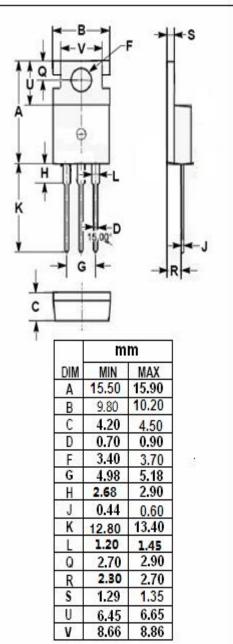
ABSOLUTE MAXIMUM RATINGS(Ta=25°C)									
SYMBOL	PARAMETER	VALUE	UNIT						
Vcer	Collector-Emitter Voltage	BD240	-55	V					
		BD240A	-70						
		BD240B	-90						
		BD240C	-115						
V <sub>CEO</sub>	Collector-Emitter Voltage	BD240	-45	- V					
		BD240A	-60						
		BD240B	-80						
		BD240C	-100						
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V						
lc	Collector Current-Continu	-2	А						
Ісм	Collector Current-Peak	-4	А						
IB	Base Current	-0.6	А						
Pc	Collector Power Dissipatio @ T <sub>c</sub> =25℃	30	W						
TJ	Junction Temperature	150	°C						
T <sub>stg</sub>	Storage Temperature Ran	-65~150	°C						

PARAMETER

Thermal Resistance, Junction to Case

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)





isc website: www.iscsemi.com

THERMAL CHARACTERISTICS

SYMBOL

Rth j-c

 $^1$  isc & is

UNIT

°C/W

MAX

4.17



# **isc Silicon PNP Power Transistor**

# BD240/A/B/C

### **ELECTRICAL CHARACTERISTICS**

#### 

SYMBOL	PARAMETER		CONDITIONS	MIN	MAX	UNIT
Vceo(sus)	Collector-Emitter Sustaining Voltage	BD240	- Ic= -30mA; Iв= 0	-45	-	v
		BD240A		-60		
		BD240B		-80		V
		BD240C		-100		
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage		I <sub>C</sub> = -1A; I <sub>B</sub> = -0.2A		-0.7	V
$V_{\text{BE}(\text{on})}$	Base-Emitter On Voltage		I <sub>C</sub> = -1A; V <sub>CE</sub> = -4V		-1.3	V
ICES	Collector Cutoff Current	BD240	V <sub>CE</sub> = -45V; V <sub>BE</sub> = 0		-0.2	mA
		BD240A	V <sub>CE</sub> = -60V; V <sub>BE</sub> = 0			
		BD240B	V <sub>CE</sub> = -80V; V <sub>BE</sub> = 0			
		BD240C	V <sub>CE</sub> = -100V; V <sub>BE</sub> = 0			
ICEO	Collector Cutoff Current	BD240/A	V <sub>CE</sub> = -30V; I <sub>B</sub> = 0	-0.3	mA	
		BD240B/C	V <sub>CE</sub> = -60V; I <sub>B</sub> = 0		-0.3	
I <sub>EBO</sub>	Emitter Cutoff Current		V <sub>EB</sub> = -5V; I <sub>C</sub> =0		-1.0	mA
h <sub>FE-1</sub>	DC Current Gain		I <sub>C</sub> = -0.2A; V <sub>CE</sub> = -4V	40		
h <sub>FE-2</sub>	DC Current Gain		I <sub>C</sub> = -1A; V <sub>CE</sub> = -4V	15		

### **NOTICE:**

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.

isc website: www.iscsemi.com