

Silicon PNP Power Transistor

BD240/A/B/C

DESCRIPTION

- DC Current Gain $-h_{FE} = 40(\text{Min}) @ I_C = -0.2\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = -45\text{V}(\text{Min})$ - BD240; $-60\text{V}(\text{Min})$ - BD240A
 $-80\text{V}(\text{Min})$ - BD240B; $-100\text{V}(\text{Min})$ - BD240C
- Complement to Type BD239/A/B/C

APPLICATIONS

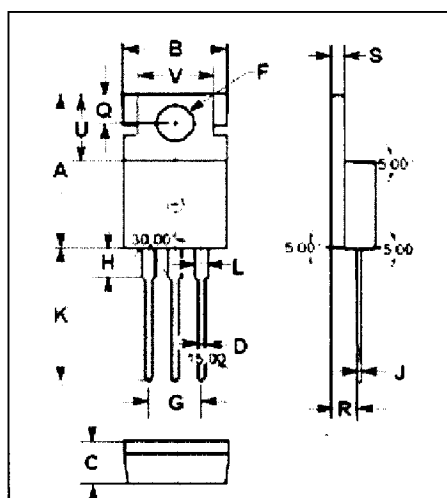
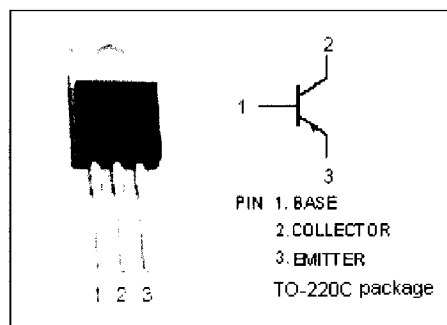
- Designed for medium power linear and switching applications.

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

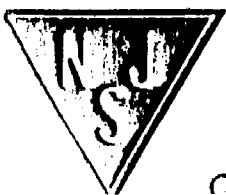
SYMBOL	PARAMETER	VALUE	UNIT
V_{CE}	Collector-Emitter Voltage	BD240	-55
		BD240A	-70
		BD240B	-90
		BD240C	-115
V_{CEO}	Collector-Emitter Voltage	BD240	-45
		BD240A	-60
		BD240B	-80
		BD240C	-100
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-2	A
I_{CM}	Collector Current-Peak	-4	A
I_B	Base Current	-0.6	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	30	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	4.17	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BD240	$I_C = -30\text{mA}; I_B = 0$	-45		V
		BD240A		-60		
		BD240B		-80		
		BD240C		-100		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		$I_C = -1\text{A}; I_B = -0.2\text{A}$		-0.7	V
$V_{BE(on)}$	Base-Emitter On Voltage		$I_C = -1\text{A}; V_{CE} = -4\text{V}$		-1.3	V
I_{CES}	Collector Cutoff Current	BD240	$V_{CE} = -45\text{V}; V_{BE} = 0$		-0.2	mA
		BD240A	$V_{CE} = -60\text{V}; V_{BE} = 0$			
		BD240B	$V_{CE} = -80\text{V}; V_{BE} = 0$			
		BD240C	$V_{CE} = -100\text{V}; V_{BE} = 0$			
I_{CEO}	Collector Cutoff Current	BD240/A	$V_{CE} = -30\text{V}; I_B = 0$		-0.3	mA
		BD240B/C	$V_{CE} = -60\text{V}; I_B = 0$			
I_{EBO}	Emitter Cutoff Current		$V_{EB} = -5\text{V}; I_C = 0$		-1.0	mA
h_{FE-1}	DC Current Gain		$I_C = -0.2\text{A}; V_{CE} = -4\text{V}$	40		
h_{FE-2}	DC Current Gain		$I_C = -1\text{A}; V_{CE} = -4\text{V}$	15		