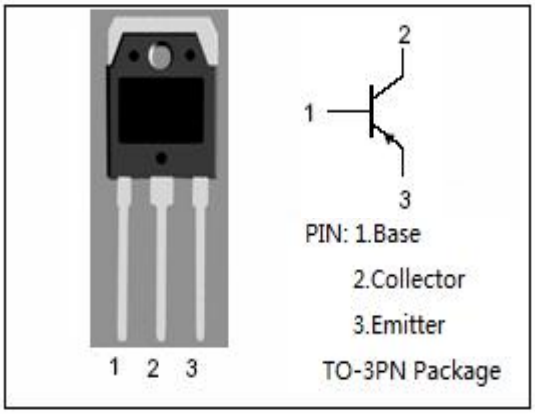
isc Silicon PNP Power Transistor — BD250/A/B/C

DESCRIPTION

- Collector Current -I_C= -25A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$ = -45V(Min)- BD250; -60V(Min)- BD250A
  -80V(Min)- BD250B; -100V(Min)- BD250C
- Complement to Type BD249/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

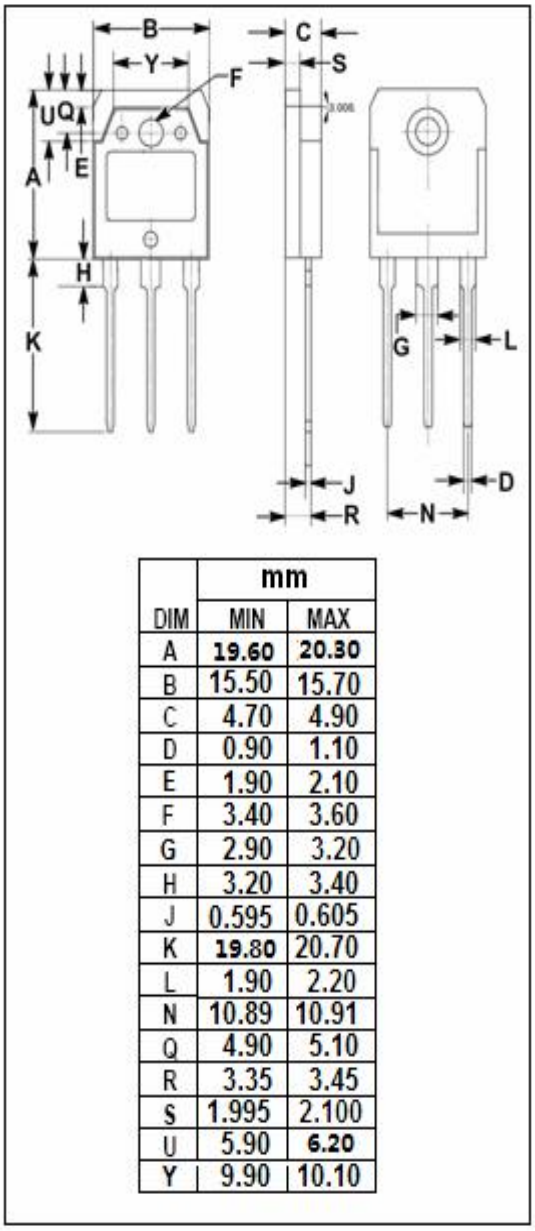


APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CER}	Collector-Emitter Voltage (R_{BE}= 100Ω)	BD250	-55	V
		BD250A	-70	
		BD250B	-90	
		BD250C	-115	
V_{CEO}	Collector-Emitter Voltage	BD250	-45	V
		BD250A	-60	
		BD250B	-80	
		BD250C	-100	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-25	A
I_{CM}	Collector Current-Peak		-40	A
I_B	Base Current		-5	A
P_C	Collector Power Dissipation @ T_a=25℃		3	W
	Collector Power Dissipation @ T_C=25℃		125	
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		-65~150	℃



DIM	mm MIN	mm 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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.0	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	BD250	I_C= -30mA; I_B= 0	-45			V
		BD250A		-60			
		BD250B		-80			
		BD250C		-100			
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage		I_C= -15A; I_B= -1.5A			-1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage		I_C= -25A; I_B= -5A			-4.0	V
$V_{BE(on)-1}$	Base-Emitter On Voltage		I_C= -15A; V_{CE}= -4V			-2.0	V
$V_{BE(on)-2}$	Base-Emitter On Voltage		I_C= -25A; V_{CE}= -4V			-4.0	V
I_{CES}	Collector Cutoff Current	BD250	V_{CE}= -55V; V_{BE}= 0			-0.7	mA
		BD250A	V_{CE}= -70V; V_{BE}= 0				
		BD250B	V_{CE}= -90V; V_{BE}= 0				
		BD250C	V_{CE}= -115V; V_{BE}= 0				
I_{CEO}	Collector Cutoff Current	BD250/A	V_{CE}= -30V;I_B= 0			-1.0	mA
		BD250B/C	V_{CE}= -60V;I_B= 0				
I_{EBO}	Emitter Cutoff Current		V_{EB}= -5V; I_C= 0			-1.0	mA
h_{FE-1}	DC Current Gain		I_C= -1.5A; V_{CE}= -4V	25			
h_{FE-2}	DC Current Gain		I_C= -15A; V_{CE}= -4V	10			
h_{FE-3}	DC Current Gain		I_C= -25A; V_{CE}= -4V	5			
Switching times							
t_{on}	Turn-on Time		I_C= -5A; I_{B1}= -I_{B2}= -0.5A; R_L= 5Ω ; $V_{BE(off)}$= -5V		0.2		μs
t_{off}	Turn-off Time				0.4		μs

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