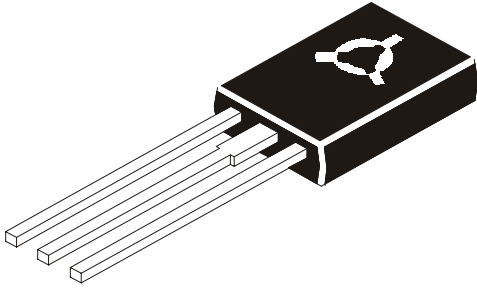


NPN/PNP PLASTIC MEDIUM POWER SILICON TRANSISTORS

**BD433, 435, 437, 439, 441 NPN
BD434, 436, 438, 440, 442 PNP
TO-126**



Intended For Use in Medium Power Liner & Switching Applications.

ABSOLUTE MAXIMUM RATINGS

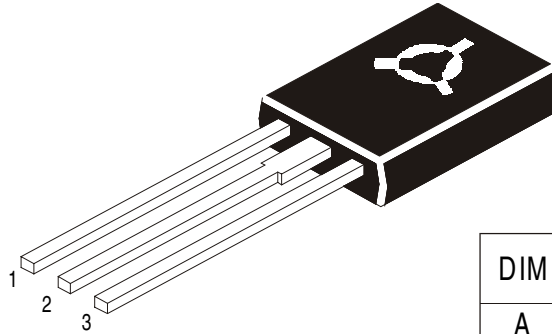
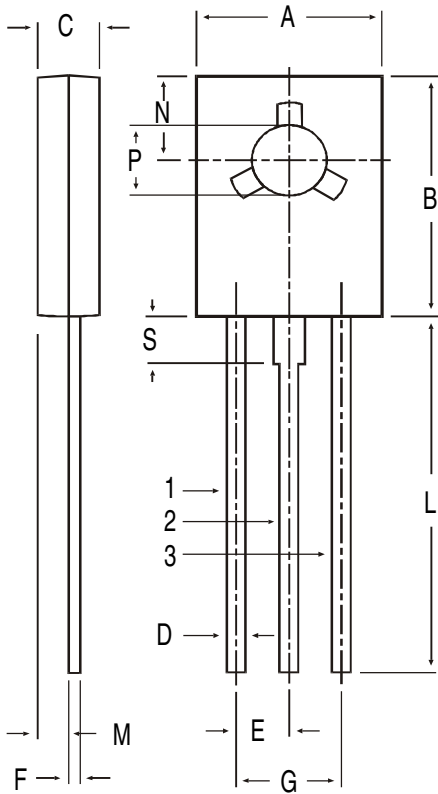
DESCRIPTION	SYMBOL	BD433 BD434	BD435 BD436	BD437 BD438	BD439 BD440	BD441 BD442	UNIT
Collector -Base Voltage	VCBO	22	32	45	60	80	V
Collector -Emitter Voltage	VCES	22	32	45	60	80	V
Collector -Emitter Voltage	VCEO	22	32	45	60	80	V
Emitter -Base Voltage	VEBO			5.0			V
Collector Current	IC			4.0			A
Collector Peak Current (t=10ms)	ICM			7.0			A
Base Current	IB			1.0			A
Device Dissipation@ Tc=25 degC	Ptot			36			W
Operating And Storage Junction Temperature Range	Tj, Tstg			-65 to +150			deg C
THERMAL RESISTANCE							
Junction to Case	Rth(j-c)			3.5			deg C/W
Junction to Ambient	Rth(j-a)			100			deg C/W

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	BD433 BD434	BD435 BD436	BD437 BD438	BD439 BD440	BD441 BD442	UNIT
Collector-Cut off Current	ICBO	IE=0, VCB=Rated VCBO	<100	<100	<100	<100	<100	uA
	ICES	VBE=0, VCE=Rated VCES	<100	<100	<100	<100	<100	uA
Emitter-Cut off Current	IEBO	VEB=5V, IC=0	<1.0	<1.0	<1.0	<1.0	<1.0	mA
Collector -Emitter (sus) Voltage	VCEO(sus)*	IC=100mA, IB=0	>22	>32	>45	>60	>80	V
Collector Emitter Saturation Voltage	VCE(Sat)*	IC=2A, IB=0.2A	<0.5	<0.5	<0.6	<0.8	<0.8	V
Base Emitter on Voltage	VBE(on)*	IC=10mA, VCE=5V, ALL IC=2A, VCE=1V			typ0.58			V
DC Current Gain	hFE*	IC=10mA, VCE=5V	>40	>40	>30	>20	>15	V
		IC=500mA, VCE=1V	>85	>85	>85	>40	>40	V
		IC=2A, VCE=1V	>50	>50	>40	>25	>15	V
		hFE1*/hFE2* Matched Pair	IC=500mA, VCE=1V ALL			<1.4		
Transition Frequency	ft	VCE=1V, IC=250mA, ALL			>3.0			MHZ

*Pulse Test:- Pulse Duration=300us, Duty Cycle=1.5%

TO-126 (SOT-32) Plastic Package



PIN CONFIGURATION

1. EMITTER
2. COLLECTOR
3. BASE

DIM	MIN.	MAX.
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3.0	3.2
S	2.5 TYP.	

All dimensions in mm.

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-126	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2.0K	17" x 15" x 13.5"	32.0K	31 kgs

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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