

isc Silicon PNP Darlington Power Transistor

BDW24/A/B/C

DESCRIPTION

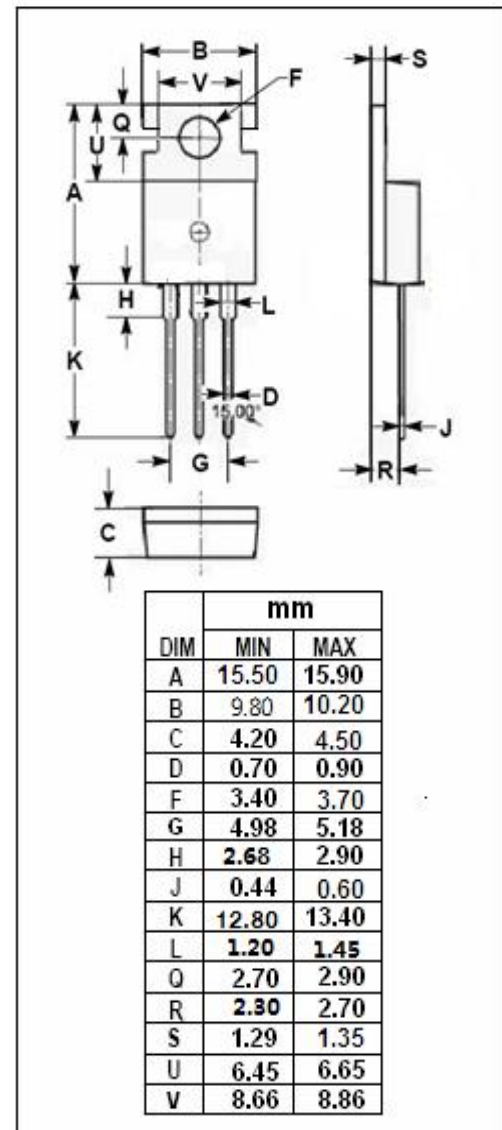
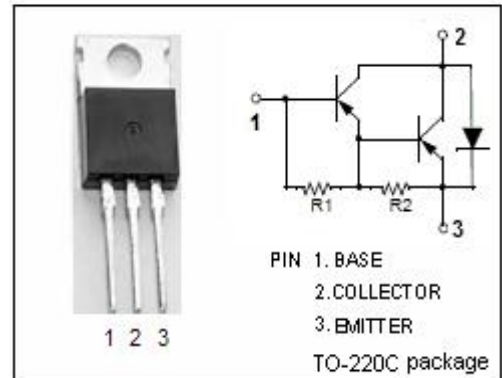
- Collector Current $-I_C = -6A$
- High DC Current Gain $-h_{FE} = 750(\text{Min}) @ I_C = -2A$
- Complement to Type BDW23/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for hammer drivers, audio amplifiers applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CE}	Collector-Emitter Voltage	BDW24	-45
		BDW24A	-60
		BDW24B	-80
		BDW24C	-100
V_{CEO}	Collector-Emitter Voltage	BDW24	-45
		BDW24A	-60
		BDW24B	-80
		BDW24C	-100
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-6	A
I_{CM}	Collector Current-Peak	-8	A
I_B	Base Current-Continuous	-0.2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	50	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



isc Silicon PNP Darlington Power Transistor

BDW24/A/B/C

ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	BDW24	-45			V
		BDW24A	-60			
		BDW24B	-80			
		BDW24C	-100			
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -2A; I _B = -8mA			-2	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -6A; I _B = -60mA			-3	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -2A; I _B = -8mA			-2.5	V
V _{BE(on)-1}	Base-Emitter On Voltage	I _C = -1A; V _{CE} = -3V			-2.5	V
V _{BE(on)-2}	Base-Emitter On Voltage	I _C = -6A; V _{CE} = -3V			-3	V
V _{ECF}	C-E Diode Forward Voltage	I _F = -2A			-1.8	V
I _{CEO}	Collector Cutoff Current	BDW24 V _{CE} = -22V; I _B = 0			-0.5	mA
		BDW24A V _{CE} = -30V; I _B = 0				
		BDW24B V _{CE} = -40V; I _B = 0				
		BDW24C V _{CE} = -50V; I _B = 0				
I _{CBO}	Collector Cutoff Current	BDW24 V _{CB} = -45V; I _E = 0			-0.2	mA
		BDW24A V _{CB} = -60V; I _E = 0				
		BDW24B V _{CB} = -80V; I _E = 0				
		BDW24C V _{CB} = -100V; I _E = 0				
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-2	mA
h _{FE-1}	DC Current Gain	I _C = -1A; V _{CE} = -3V	1000			
h _{FE-2}	DC Current Gain	I _C = -2A; V _{CE} = -3V	750		20000	
h _{FE-3}	DC Current Gain	I _C = -6A; V _{CE} = -3V	100			

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.