




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0310-DB10700000L10A
DATE	Mar. 10, 2021
REVISION	A0
DESCRIPTION	<p>Thru Hole Single Phase Glass Passivated Bridge Rectifier, DB Series, DB107 Type, 4 Pins, Reverse Voltage 1000V Max. Forward Current 1.0A Max. Operating Temp. Range -55°C ~+150°C, Package in Tube, 50pcs/Tube, 50 Tube/Box. RoHS/RoHS III compliant</p>
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	MDD DB107
PART CODE	DB10700000L10A

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: March 10, 2021			

CUSTOMER APPROVE	
DATE:	

THRU HOLE BRIDGE RECTIFER DB SERIES



MAIN FEATURE

- Reliable low cost construction utilizing molded plastic technique
- Small size simple installation
- High forward surge current capability
- High temperature soldering guaranteed.
- 260 °C/10 seconds, at 5 lbs (2.3kg) tension

APPLICATION

- For printed circuit board

RFQ

[Request For Quotation](#)

PART CODE GUIDE

DB	10700000	L	10A
1	2	3	4

- 1) **DB:** Thru Hole Single Phase Glass Passivated Bridge Rectifier, 4 Pins , DB Series
- 2) **10700000:** Type code for original part number DB107
- 3) **L:** Package code, In Tube, 50pcs/Tube, 50 Tube/Box
- 4) **10A:** Specification code for Reverse Voltage 1000V Max. Forward Current 1.0A Max.

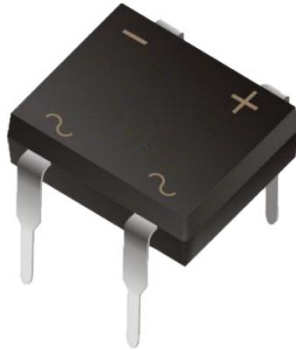
MORE ITEMS AVAILABLE

DB10100000L105	DB10200000L110	DB10300000L120	DB10400000L140	DB10500000L160
DB10600000L180	DB10700000L10A			
DB15100000L150	DB15200000L151	DB15300000L152	DB15400000L154	DB15500000L156
DB15600000L158	DB15700000L15A			

THRU HOLE BRIDGE RECTIFIER DB TYPE

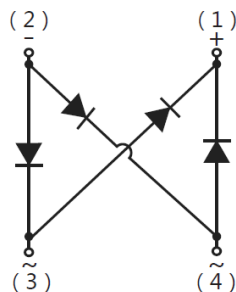
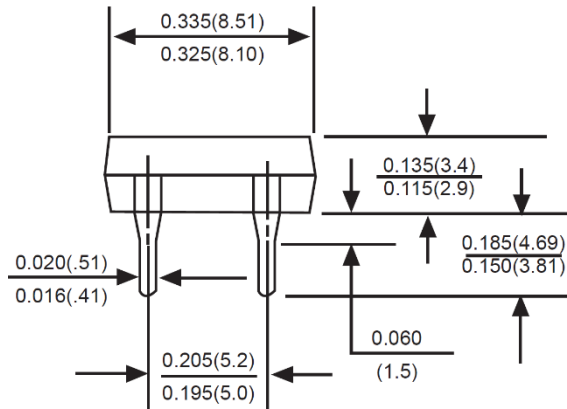
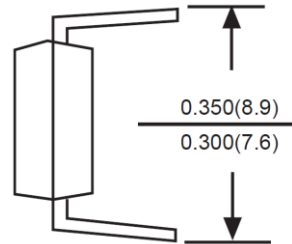
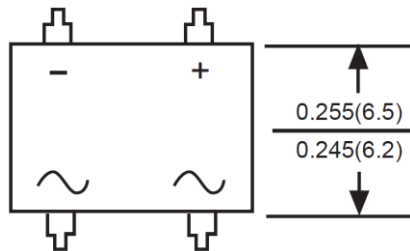
DIMENSION (Unit: Inch/mm)

Image for reference



Marking: DB107

DB



THRU HOLE BRIDGE RECTIFER DB SERIES
MECHANICAL DATA

Case	Terminals	Polarity	Mounting Position	Weight per piece
JEDEC DB molded plastic body	Solder plated, Solderable per MIL-STD-750, Method 2026	Polarity symbol marking on case	Any	0.020 Ounce, 0.622 grams

MAX. RATING & CHARACTERISTICS

Parameter	SYMBOLS	VALUE			UNITS
		Min.	Typical	Max.	
Repetitive peak reverse voltage	V _{RRM}			1000	Volts
RMS voltage	V _{RMS}			700	Volts
DC blocking voltage	V _{DC}			1000	Volts
Average forward output rectified current at T _c = 40°C	I _{AV}			1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}		50		A
Instantaneous forward voltage at 1.0A	V _F			1.10	Volts
DC reverse current at rated DC blocking voltage	I _R			10	μA
				500	μA
Junction capacitance	C _J		-		pF
Thermal resistance	R _{QJA}		-		°C/W
Operating junction temperature range	T _J	-55		+150	
Storage temperature range	T _{STG}	-55		+150	°C

Note

1. Ratings at 25 C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

THRU HOLE BRIDGE RECTIFIER DB SERIES
RELIABILITY

Number	Experiment Items	Experiment Method And Conditions	Reference Documents
1	Solder Resistance Test	Test 260°C± 5°C for 10 ± 2 sec. Immerse body into solder 1/16" ± 1/32"	MIL-STD-750D METHOD-2031.2
2	Solderability Test	230°C ±5°C for 5 sec.	MIL-STD-750D METHOD-2026.1 0
3	Pull Test	1 kg in axial lead direction for 10 sec.	MIL-STD-750D METHOD-2036.4
4	Bend Test	0.5Kg Weight Applied To Each Lead, Bending Arcs 90 °C ± 5 °C For 3 Times	MIL-STD-750D METHOD-2036.4
5	High Temperature Reverse Bias Test	TA=100°C for 1000 Hours at VR=80% Rated VR	MIL-STD-750D METHOD-1038.4
6	Forward Operation Life Test	TA=25°C Rated Average Rectified Current	MIL-STD-750D METHOD-1027.3
7	Intermittent Operation Life Test	On state: 5 min with rated IRMS Power Off state: 5 min with Cool Forced Air. On and off for 1000 cycles.	MIL-STD-750D METHOD-1036.3
8	Pressure Cooker Test	15 PSIG, TA=121°C, 4 hours	MIL-S-19500 APPENOIXC
9	Temperature Cycling Test	-55°C~+125°C; 30 Minutes For Dwelled Time 5 minutes for transferred time. Total: 10 cycles.	MIL-STD-750D METHOD-1051.7
10	Thermal Shock Test	0°C for 5 minutes., 100°C for 5minutes, Total: 10 cycles	MIL-STD-750D METHOD-1056.7
11	Forward Surge Test	8.3ms Single Sale Sine-wave One Surge.	MIL-STD-750D METHOD-4066.4
12	Humidity Test	TA=65°C, RH=98% for 1000 hours.	MIL-STD-750D METHOD-1021.3
13	High Temperature Storage life Test	150°C for 1000 Hours	MIL-STD-750D METHOD-1031.5

THRU HOLE BRIDGE RECTIFIER DB SERIES

RATINGS AND CHARACTERISTIC CURVES (For Reference Only)

FIG. 1- MAXIMUM DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

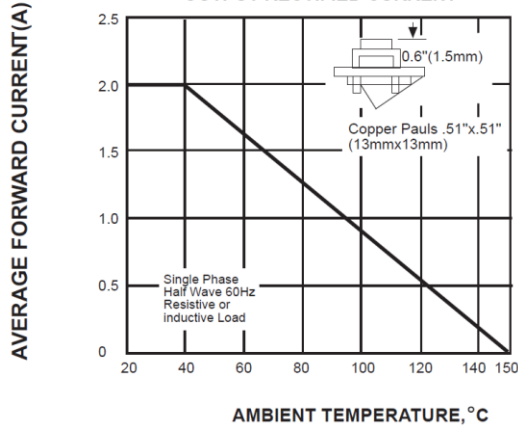


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

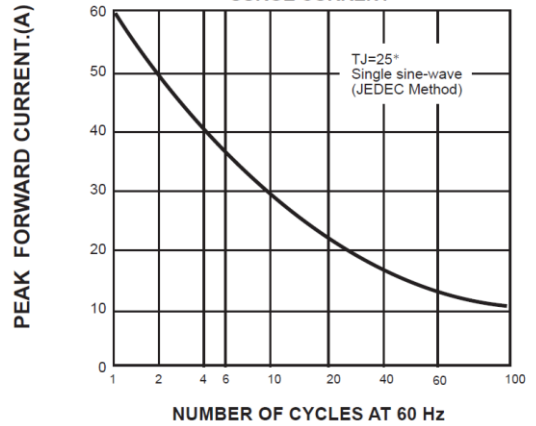


FIG. 3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

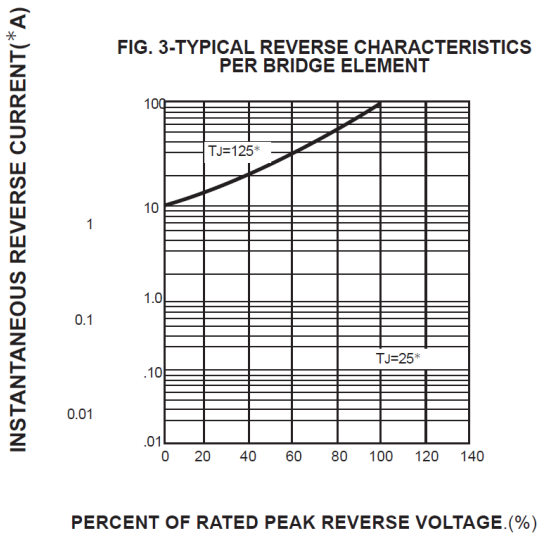


FIG. 4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

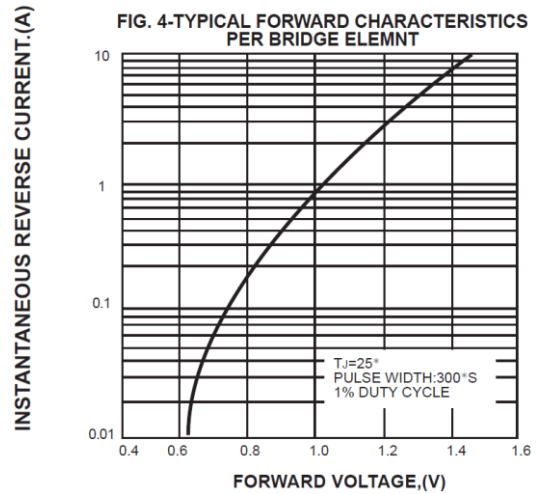
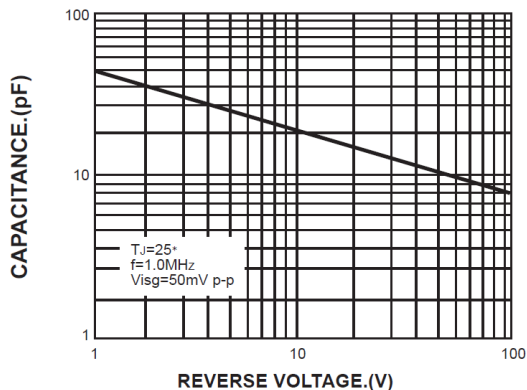


FIG. 3- TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT



THRU HOLE BRIDGE RECTIFER DB SERIES

PACKAGE

Case Code	Qty. per Tube (pcs)	Qty. Per Box (pcs)	Inner Box L*W*H (mm)	Carton size L*W*H (mm)	Qty. Per Carton (pcs)	G. W (kg)
DB	50	2500	450*130*66	470*300*160	10,000	6.9

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