NextGen Components,Inc.

PART CODE: DBS157S0S0150A

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0626-DBS157S0S0150A
DATE	June 26, 20210
REVISION	A0
DESCRIPITION	SMD Single Phase Glass Passivated Bridge Rectifier, DBS series, DB157S Type 4 Pads, Reverse Voltage 1000V Max. Forward Current 1.5A Max. Operating Temp. Range -55°C ~+150°C, Package in Tape/Reel, 1000pcs/Reel RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	MDD DB157S
PART CODE	DBS157S0S0150A

VENDOR APPROVE
Issued/Checked/Approved   
DATE: June 26, 2021

CUSTOMER APPROVE
DATE:

NextGen Components,Inc.

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SMD BRIDGE RECTIFER DBS 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

DBS	157S0	S	0150A
1	2	3	4

1) **DBS**: SMD Single Phase Glass Passivated Bridge Rectifier, 4 Pads, DBS series

2) **157S0**: Type code for original part number DB157S

3) **S**: Package code, Tape/reel, 1000pcs/reel.

4) **0150A:** Specification code for Reverse Voltage 1000V Max. Forward Current 1.5A Max.

MORE ITEMS AVAILABLE

DBS101S000S105	DBS102S000S110	DBS103S000S120	DBS104S000S140	DBS105S000S160
DBS106S000S180	DBS107S000S10A			
DBS151S0S01505	DBS152S0S01510	DBS153S0S01520	DBS154S0S01540	DBS155S0S01560
DBS156S0S01580	**DBS157S0S0150A**			
DBS201S000S205	DBS202S000S210	DBS203S000S220	DBS204S000S240	DBS205S000S260
DBS206S000S280	DBS207S000S20A			

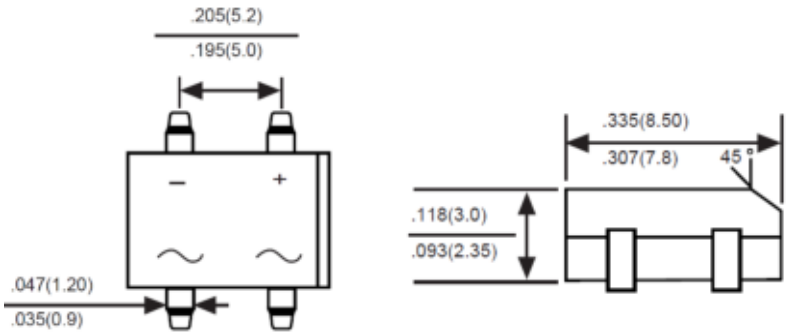
DIMENSION (Unit: Inch/mm)

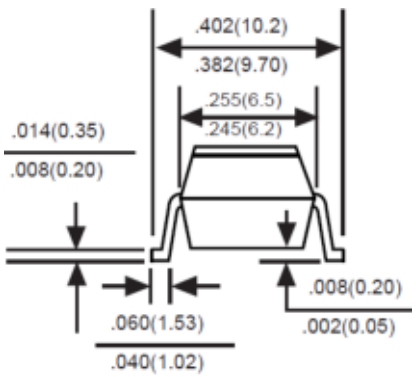
Image for reference

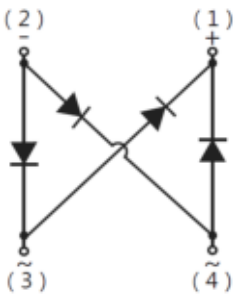


Marking: DB157S

DBS







MECHANICAL DATA

Case	Terminals	Polarity	Mounting Position	Weight per piece
JEDEC DBS 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 Tc= 40°C		I_{AV}			1.5	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 1.5A		V_F			1.1	Volts
DC reverse current at rated DC blocking voltage	**TA=25℃**	I_R			10	μA
	TA=100℃				500	μA
Junction capacitance		C_J		-		pF
Thermal resistance		$R_{\theta JA}$		-		°C/W
Operating junction temperature range		T_J	-55		+150	
Storage temperature range		T_{STG}	-55		+150	°C

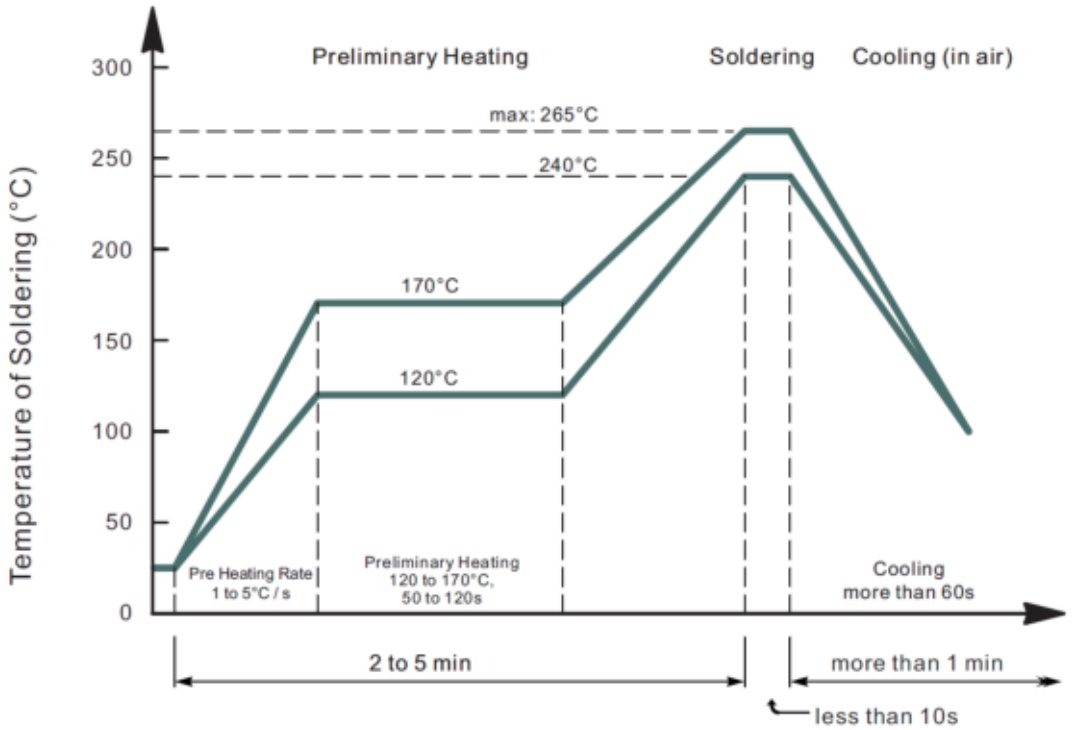
Note

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%.

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	T_A=100°C for 1000 Hours at V_R=80% Rated V_R	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, T_A=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	T_A=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

SUGGESTED REFLOW PROFILE (For Reference Only)



- Recommended peak temperature is over 245℃, If peak temperature is below 245 ℃, you may adjust the following parameters; time length of peak temperature (longer), time length of soldering (longer), thickness of solder paste (thicker)
- Welding shall not exceed 2 times
- Remark: lead free solder paste (96.5 sn/3.0 Ag/0.5Cu)

RATINGS AND CHARACTERISTIC CURVES (For Reference Only)

FIG. 1- MAXIMUN DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

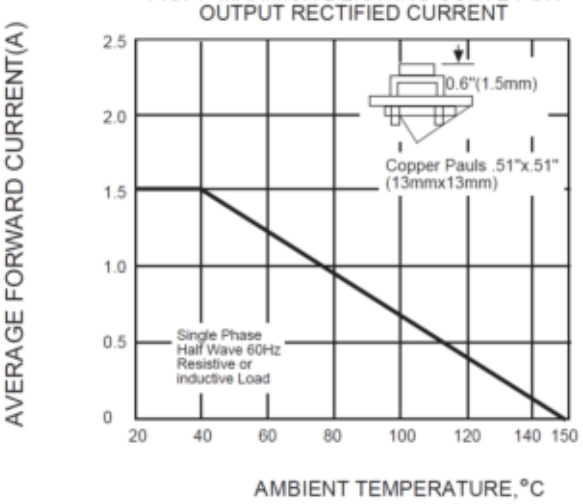


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

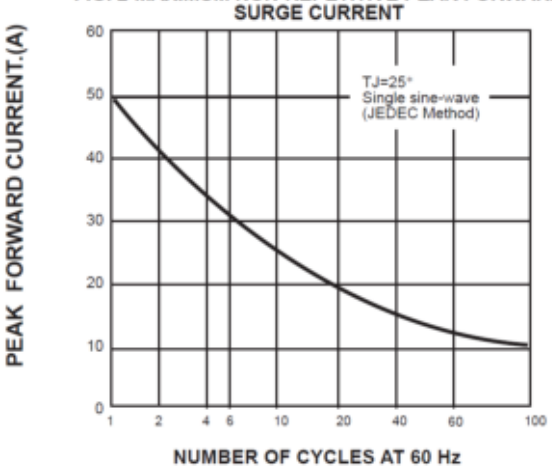


FIG. 3-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

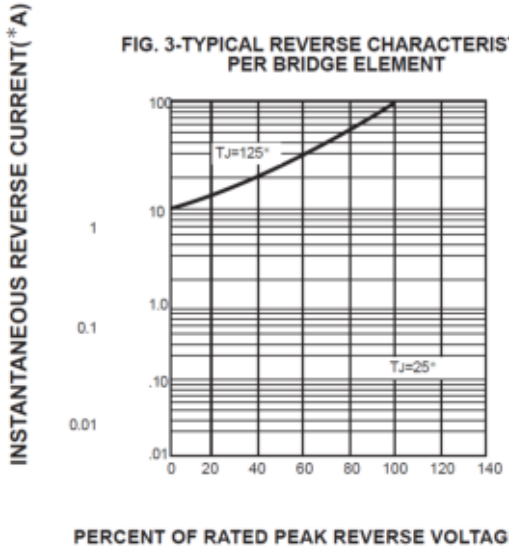


FIG. 4-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMNT

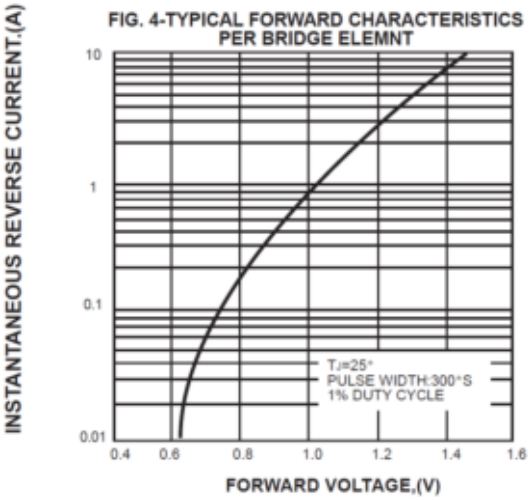
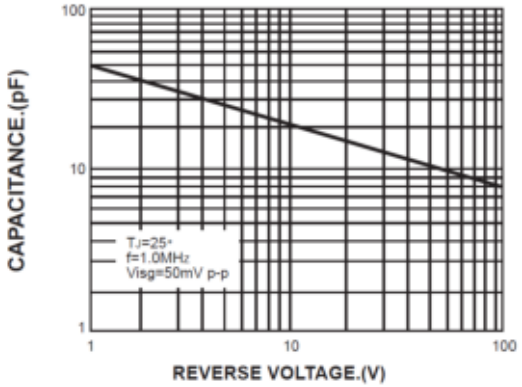
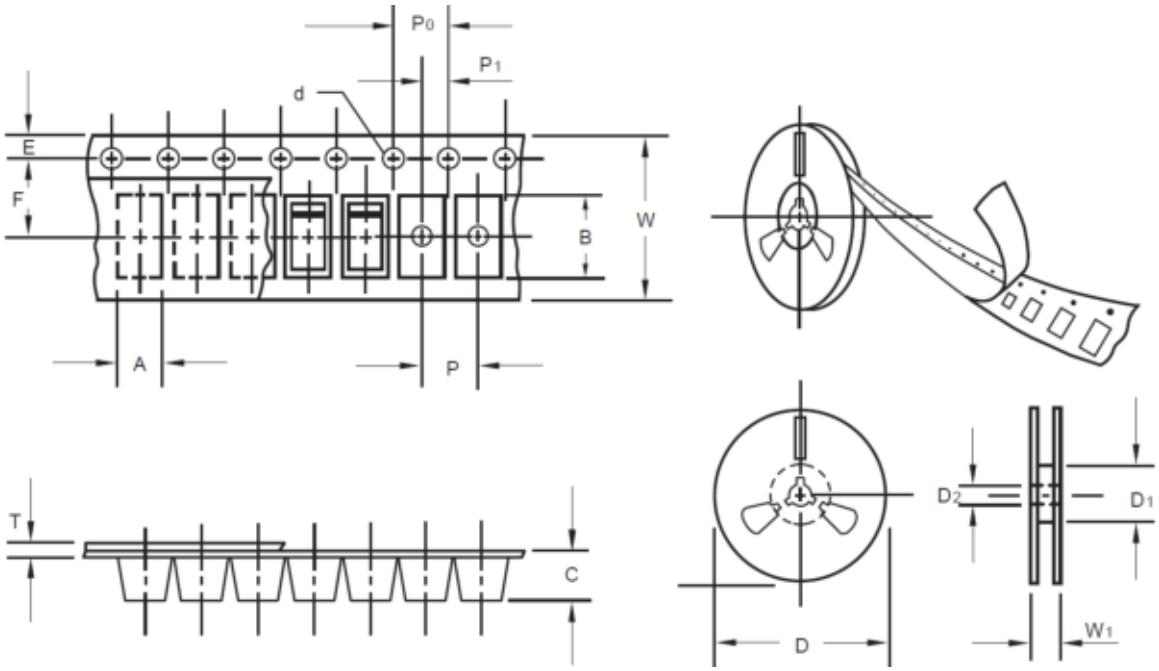


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT



TAPE/REEL (Unit: mm)

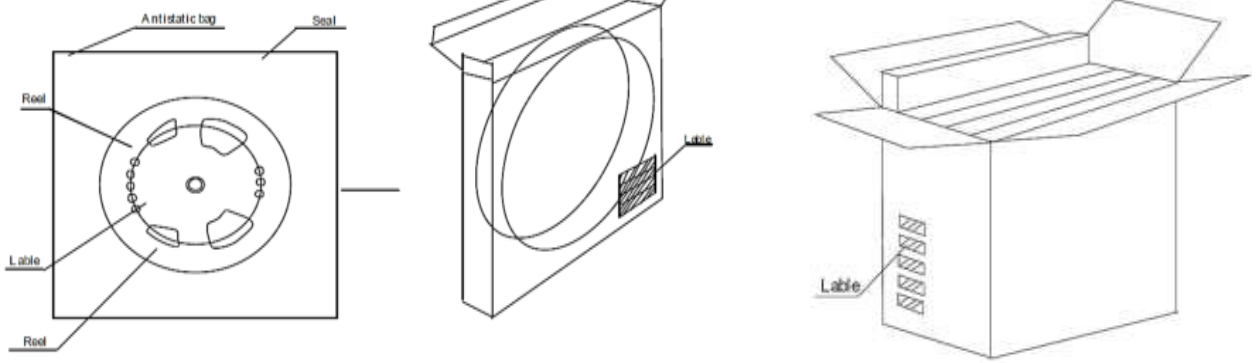
All Devices are packed in accordance with EIA standard RS-481-A and specifications.



Item	Symbol	Tolerance	DBS
Carrier width	A	0.1	2.8
Carrier Length	B	0.1	5.33
Carrier Depth	C	0.1	2.36
Sprocket hole	d	0.05	1.50
13”Reel outside diameter	D	2.0	330.00
13”Reel inner diameter	D1	Min.	50.00
7”Reel outside diameter	D	-	-
7”Reel inner diameter	D1	-	-
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.0
Overall tape thickness	T	0.1	0.28
Tape width	W	0.3	12.00
Reel width	W1	1.0	18.0

PACKAGE

Case Code	Reel Size	MPQ (pcs)	Component Spacing (mm)	Qty. Per Box (pcs)	Inner Box L*W*H (mm)	Reel Size (mm)	Carton size L*W*H (mm)	Qty. Per Carton (pcs)	G. W (kg)
DBS	13”	1,000		2,000	300*300*45	330	320*320*280	10,000	6.90



DISCLAIMER

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