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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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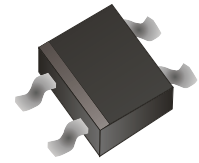


## DB101S-HF Thru. DB107S-HF

Reverse Voltage: 50 to 1000V

Forward Current: 1.0A

RoHS Device  
Halogen Free

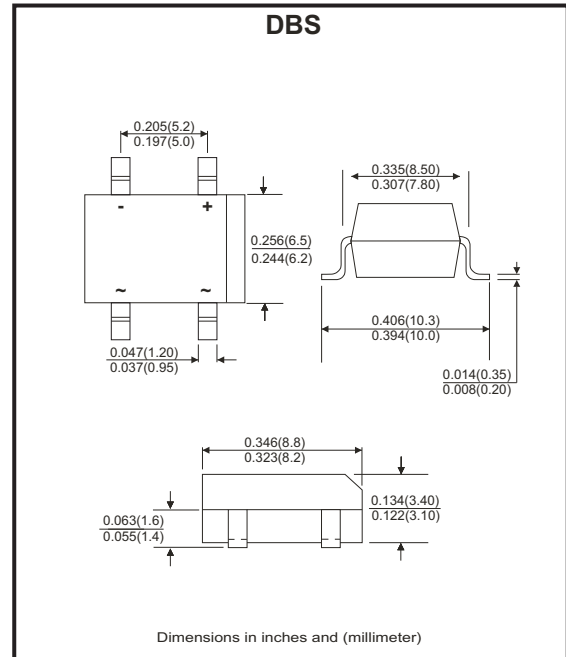


### Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E349301

### Mechanical Data

- Polarity: As marked on Body.
- Weight: 0.38 grams.
- Mounting position: Any



### Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Parameter	Symbol	DB 101S-HF	DB 102S-HF	DB 103S-HF	DB 104S-HF	DB 105S-HF	DB 106S-HF	DB 107S-HF	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_A=40^\circ C$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1.0A DC	$V_F$	1.1							V
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J=25^\circ C$ @ $T_J=125^\circ C$	$I_R$	10.0 500							$\mu A$
$I^2 T$ Rating for Fusing ( $t < 8.3ms$ )	$I^2 t$	3.735							$A^2 s$
Typical Junction Capacitance Per Element (Note 1)	$C_J$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ C/W$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5"×0.5" (13×13mm) copper pads.

Company reserves the right to improve product design , functions and reliability without notice.

## Rating and Characteristics Curves (DB101S-HF Thru. DB107S-HF)

Fig.1 - Forward Current Derating Curve

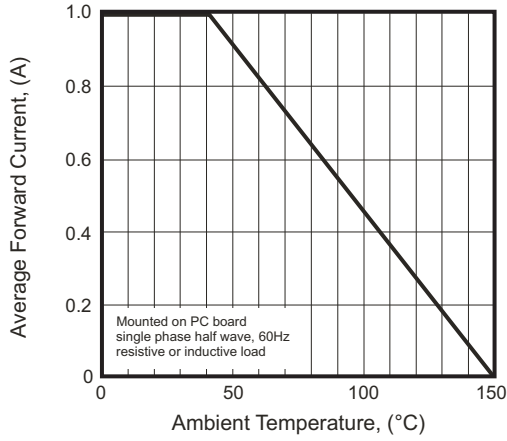


Fig.2 - Max. Non-repetitive Surge Current

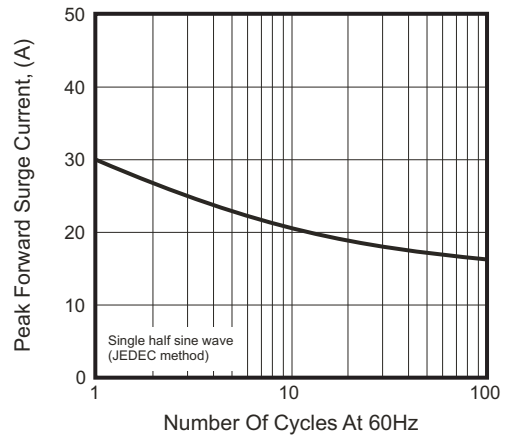


Fig.3 - Typical Junction Capacitance

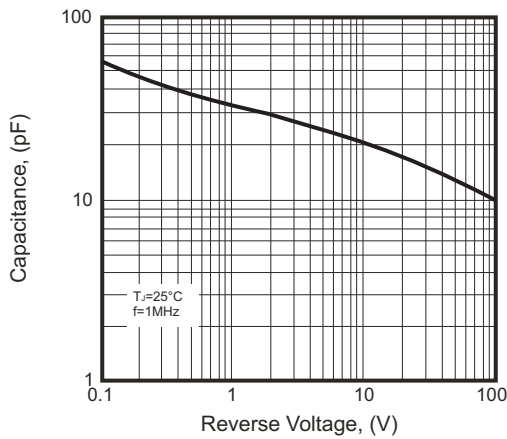


Fig.4 - Typical Forward Characteristics

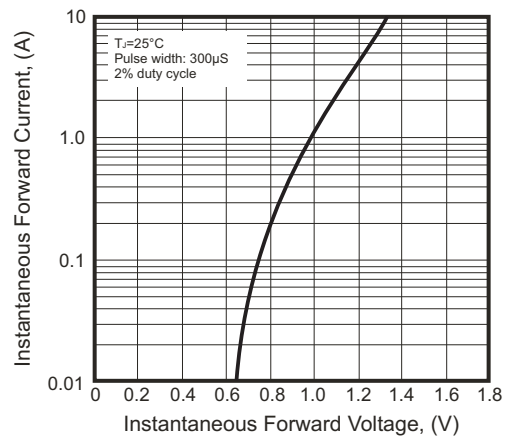
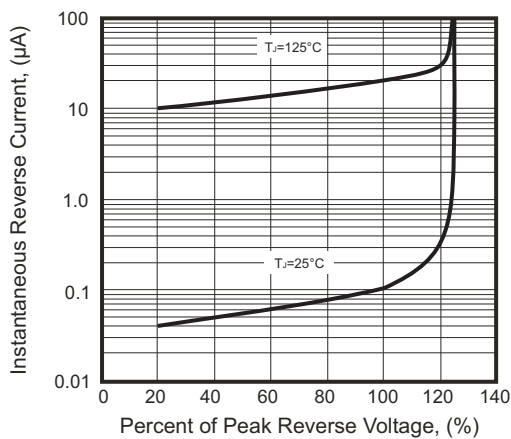
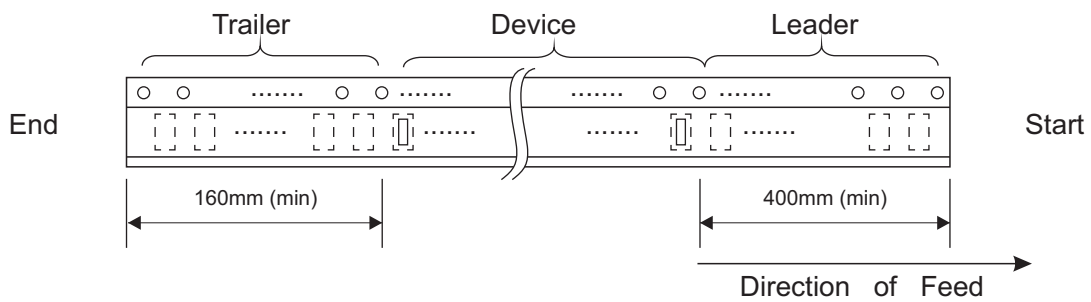
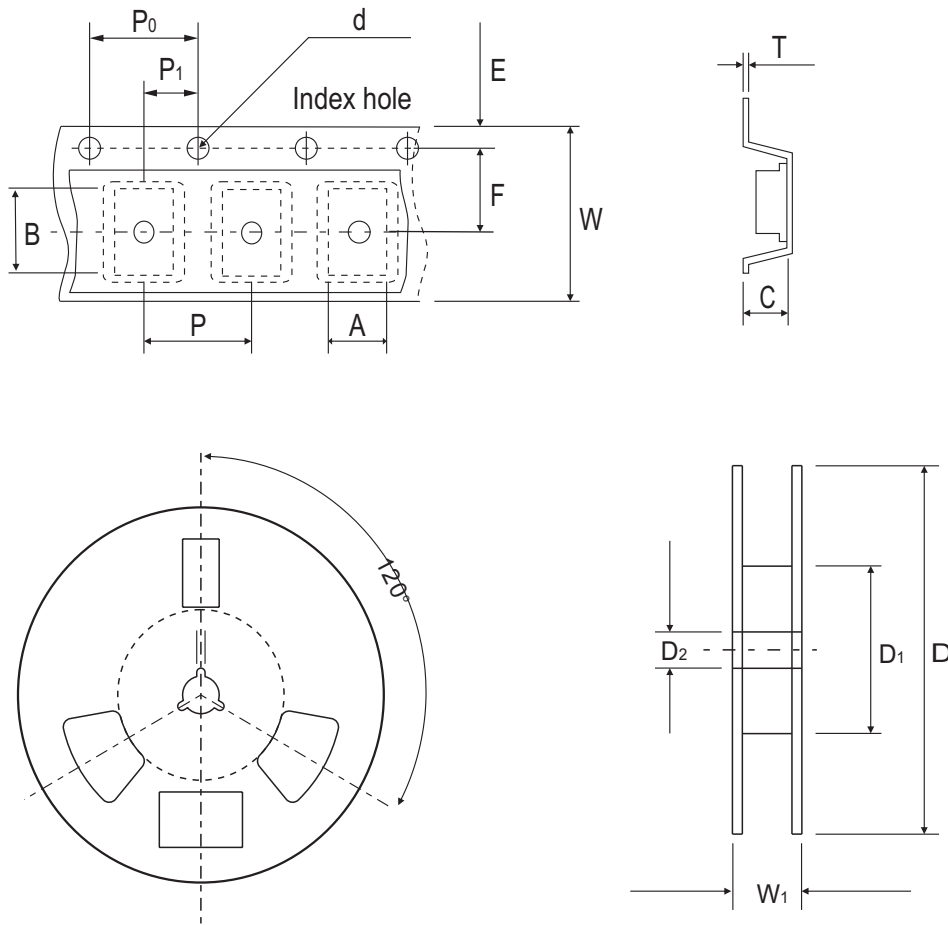


Fig.5 - Typical Reverse Characteristics



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## Reel Taping Specification



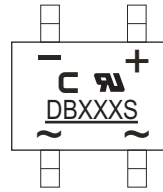
DBS	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	8.64 ± 0.10	10.41 ± 0.10	3.81 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.150 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

DBS	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	7.50 ± 0.05	12.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.32	16.00 ± 0.30	16.00~18.40
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.472 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.013	0.630 ± 0.012	0.630~0.724

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## Marking Code

Part Number	Marking code	Packaging
DB101SP-HF	DB101S	Tube
DB102SP-HF	DB102S	Tube
DB103SP-HF	DB103S	Tube
DB104SP-HF	DB104S	Tube
DB105SP-HF	DB105S	Tube
DB106SP-HF	DB106S	Tube
DB107SP-HF	DB107S	Tube
DB101ST-HF	DB101S	Reel
DB102ST-HF	DB102S	Reel
DB103ST-HF	DB103S	Reel
DB104ST-HF	DB104S	Reel
DB105ST-HF	DB105S	Reel
DB106ST-HF	DB106S	Reel
DB107ST-HF	DB107S	Reel



**XXX = Product type marking code**  
**C = Comchip Logo**

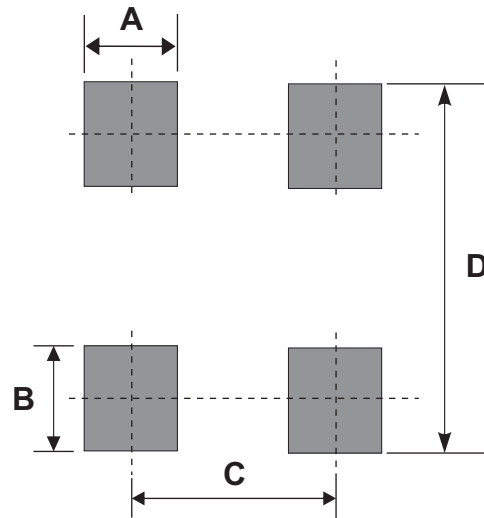
Note:

1) Suffix code after part number to specify packaging item .

Packaging	Code
TUBE PACK	P
REEL PACK	T

## Suggested PAD Layout

SIZE	DBS	
	(mm)	(inch)
A	1.20 Min	0.047 Min
B	1.52 Min	0.060 Min
C	5.21 Ref	0.205 Ref
D	10.26 Max	0.404 Max



## Standard Packaging

Case Type	TUBE PACK	
	TUBE ( pcs )	BOX ( pcs )
DBS	50	5,000

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DBS	1,000	13

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