



Compact Technology

DI100S thru DI1010S

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 1.0 Amperes

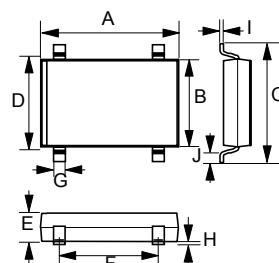
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Polarity : As marked on Body
- Weight : 0.02 ounces, 0.3 grams
- Mounting position : Any

SDIP



SDIP		
DIM.	MIN.	MAX.
A	8.05	8.51
B	6.20	6.50
C	9.40	10.4
D	7.40	7.90
E	2.20	2.50
F	5.00	5.20
G	0.89	1.14
H	.076	.330
I	.220	.250
J	1.02	1.53

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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	DI 100S	DI 101S	DI 102S	DI 104S	DI 106S	DI 108S	DI 1010S	UNIT
Maximum recurrent peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @TA=40	IF					1.0			A
I ² t Rating for fusing (t< 8.3mS)	I ² t				3.735				A ² sec
Peak forward surge current, single sine-wave superimposed on rated load (JEDEC method)	IFSM				30				A
Maximum instantaneous Forward Voltage Drop per element at 1.0A DC	V _F				1.1				V
Maximum DC Reverse Current @TA=25 at Rated DC Blocking Voltage @TA=100	I _R				5.0	500			uA
Typical junction capacitance per leg(note1)	C _J				25				pF
Typical Thermal Resistance Per leg (note2)	R _{JA} R _{JC}				40	15			/W
Operating & Storage Temperature Range	T _J &T _{STG}				-55 to +150				

note1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts

note2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.5x0.5" (13x13mm) copper pads.

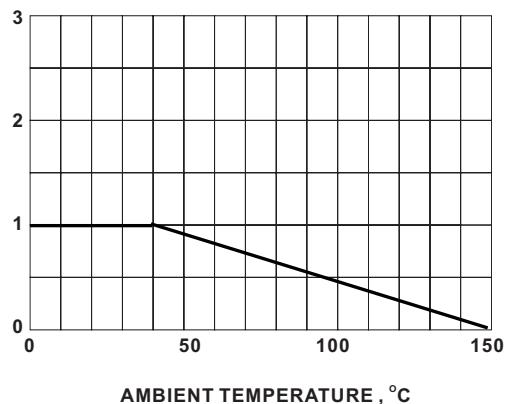
BRIDGE OUTPUT FULL WAVE RECTIFIED CURRENT
AVERSES AMPERES

Fig.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

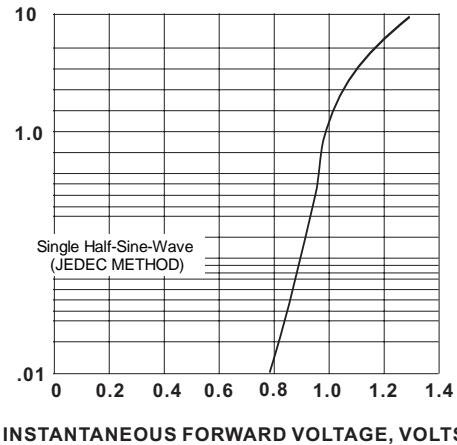
INSTANTANEOUS FORWARD CURRENT,
AMPERES

Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

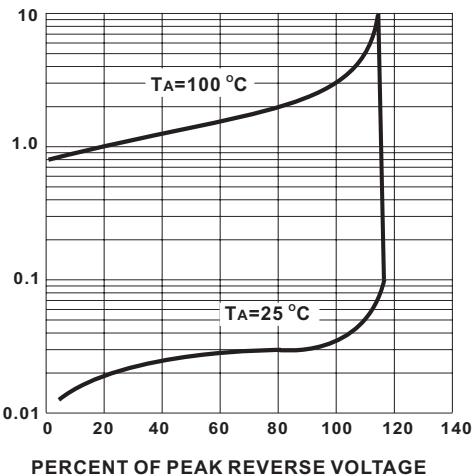
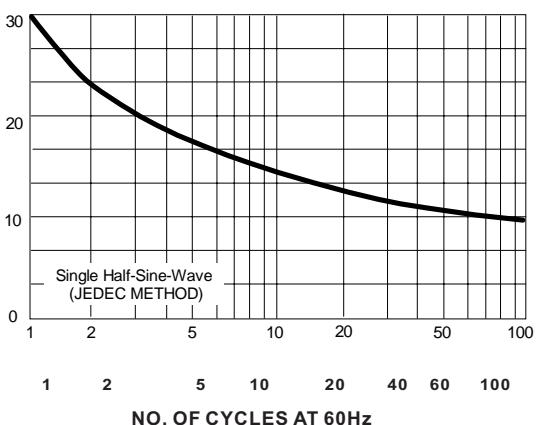
INSTANTANEOUS REVERSE CURRENT, μ A

Fig.3 TYPICAL PEAK REVERSE CHARACTERISTICS

FORWARD SURGE CURRENT, AMPERES pk
(HALF SINE-WAVE)Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD
SURGE CURRENT