LITE-ON SEMICONDUCTOR

DF15005S thru DF1512S

SURFACE MOUNT
GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE **- 50** to **1200** Volts
FORWARD CURRENT **- 1.5** Amperes

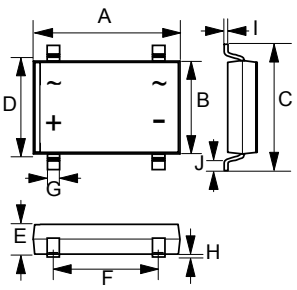
FEATURES

- Rating to 1200V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E95060

MECHANICAL DATA

- Polarity : As marked on Body
- Weight : 0.02 ounces, 0.38 grams
- Mounting position : Any

DF-S



DF-S		
DIM.	MIN.	MAX.
A	8.20	8.50
B	6.20	6.50
C	-	10.30
D	7.40	7.90
E	2.40	2.60
F	5.00	5.20
G	1.00	-
H	.076	.330
I	0.22	0.30
J	1.02	1.53
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	DF 15005S	DF 1501S	DF 1502S	DF 1504S	DF 1506S	DF 1508S	DF 1510S	DF 1512S	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	1200	V
Maximum Average Forward Rectified Current @T_C=120℃	$I_{(AV)}$	1.5								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	50								A
Peak Forward Surge Current 1.0ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	100								A
Maximum forward Voltage at 1.5A DC	V_F	1.1								V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J=25°C @T_J=125°C	I_R	10 500								uA
I^2t Rating for fusing (t < 8.3ms)	I^2t	10.4								A^2S
Typical Junction Capacitance per element (Note1)	C_J	25								pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	40 8 20								°C/W
Operating Temperature Range	T_J	-55 to +150								℃
Storage Temperature Range	T_{STG}	-55 to +150								℃

NOTES: 1.Measured at 1.0MHz and applied reverse voltage of 4.0VDC.
2.Thermal resistance from junction to ambient mounted on P.C.B with 0.5x0.5"(13x13mm) copper pads.

REV. 13, Sep-2012, KBDA02

RATING AND CHARACTERISTIC CURVES
DF1500S thru DF1512S

FIG.1 - FORWARD CURRENT DERATING CURVE

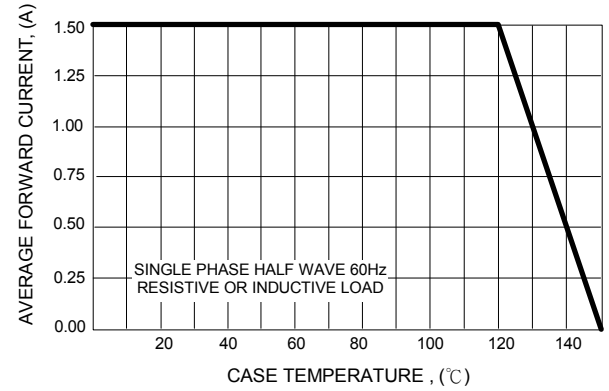


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

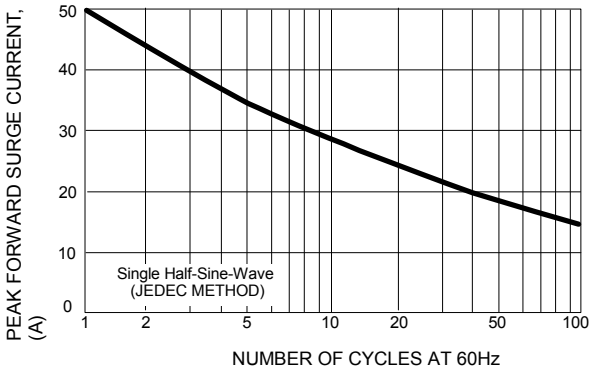


FIG.3 - TYPICAL JUNCTION CAPACITANCE

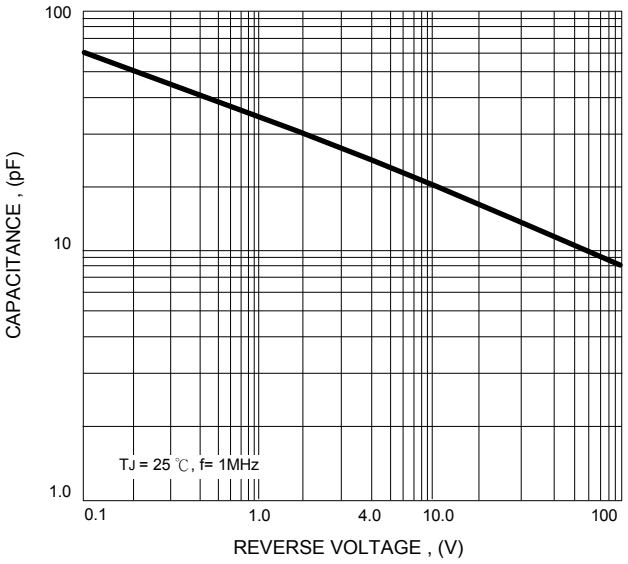


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

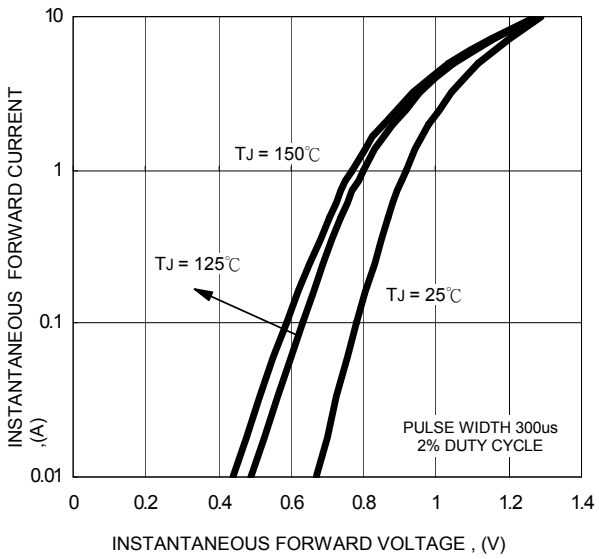


FIG.5 - NON-REPETITIVE SURGE CURRENT

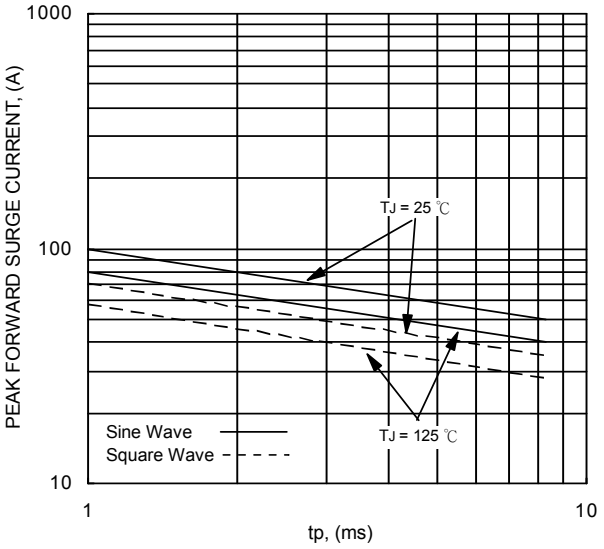
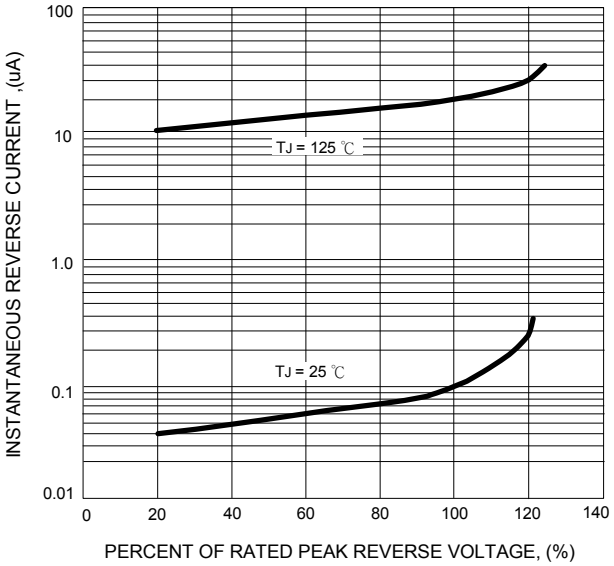


FIG. 6 - TYPICAL REVERSE CHARACTERISTICS



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.