LITE-ON SEMICONDUCTORS

TD10JN thru TD10KN

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 600 to 800 Volts FORWARD CURRENT – 1.0 Ampere

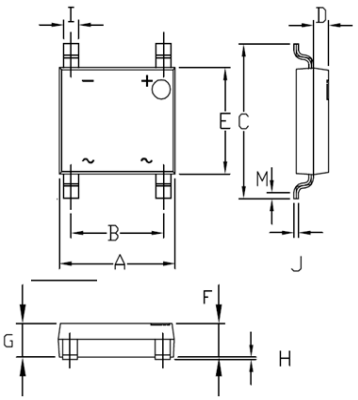
FEATURES

- Rating to 800V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94-0

MECHANICAL DATA

- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Lowest Body Profile, 1.45mm
- Polarity indicator: As marked on body
- Weight: 92.7 m grams

TD



DIM.	MIN.	MAX.
A	4.90	5.10
B	3.95	4.05
C	6.30	6.45
D	0.60	0.70
E	4.30	4.5
F	1.4	1.6
G	1.35	1.45
H	0.05	0.15
I	0.60	0.70
J	0.15	0.25
M	0.30	0.60

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	TD10JN	TD10KN	UNIT
	Marking	TD1JN	TD1KN	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	V
Maximum RMS Voltage	V_{RMS}	420	560	V
Maximum DC Blocking Voltage	V_{DC}	600	800	V
Maximum Average Forward Rectified Current @Tc = 110 ℃	$I_{(AV)}$	1.0		A
Peak Forward Surge Current single half sine-wave @ Tj = 25 ℃ @8.3 ms / @1 ms	I_{FSM}	30 / 60		A
Peak Forward Surge Current single half sine-wave @ Tj = 125 ℃ @8.3 ms / @1 ms	I_{FSM}	25 / 50		A
Maximum Forward Voltage at 0.5A DC @ T_J = 25℃	V_F	0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T_J = 25℃ / @ T_J =125℃	I_R	2 / 150		uA
I^2t Rating for fusing (1ms < t < 8.3ms)	I^2t	3.74		A^2S
Typical Junction Capacitance (Note 1)	C_J	10		pF
Typical Thermal Capacitance (Note 2)	$R\Theta_{JC}$ / $R\Theta_{JL}$ / $R\Theta_{JA}$	20 / 22 / 42		°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150		°C

Note :

REV. 4, Oct-2012, KBDA08

(1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
(2) Thermal Resistance test performed in accordance with JESD-51. Unit mounted on Aluminum substrate _ 15 x 15 x 1.6mm.

RATING AND CHARACTERISTIC CURVES
TD10JN to TD10KN

FIG.1-FORWARD CURRENT DERATING CURVE

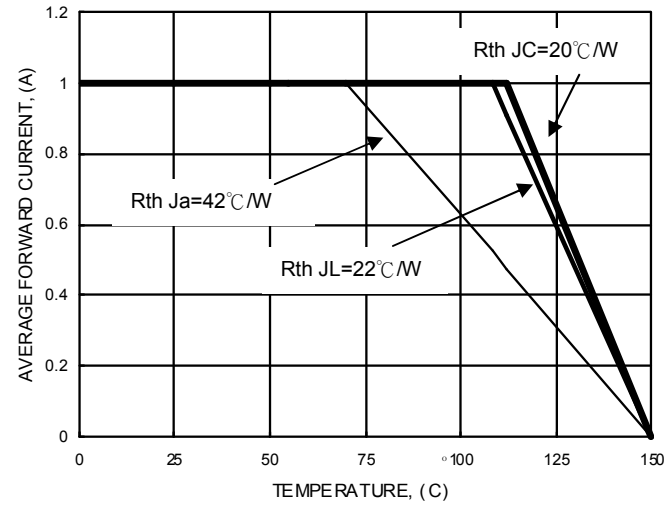


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

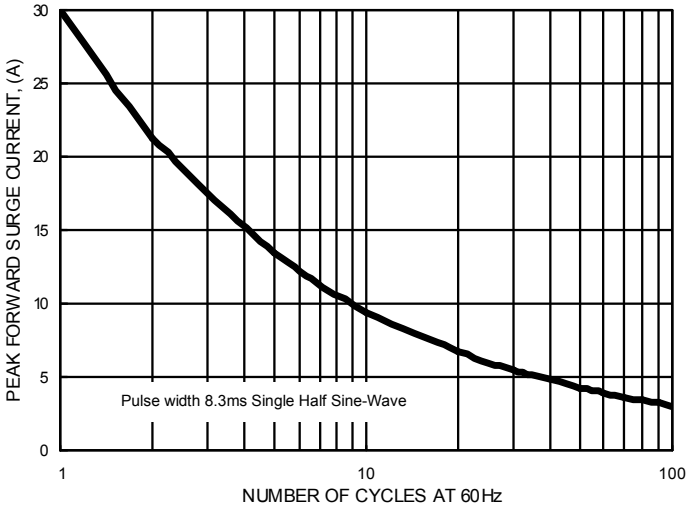


FIG.3- TYPICAL FORWORD CHARACTERISTICS

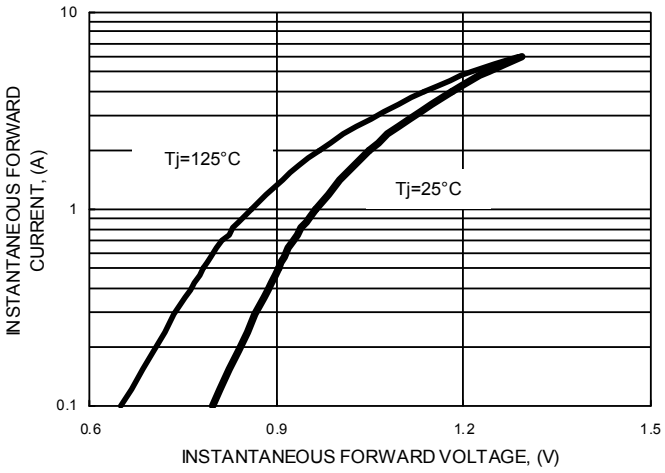


FIG.4- TYPICAL JUNCTION CAPACITANCE

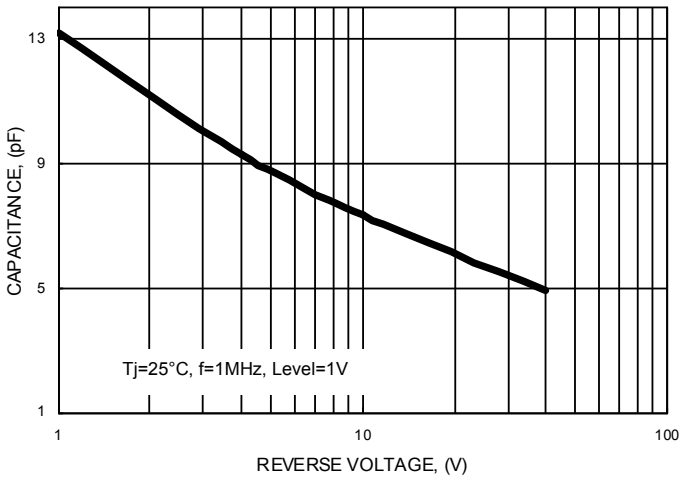


FIG.5- TYPICAL REVERSE CHARACTERISTICS

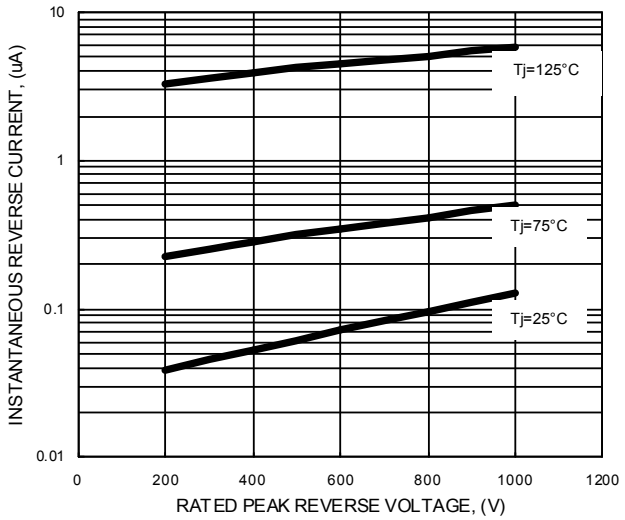
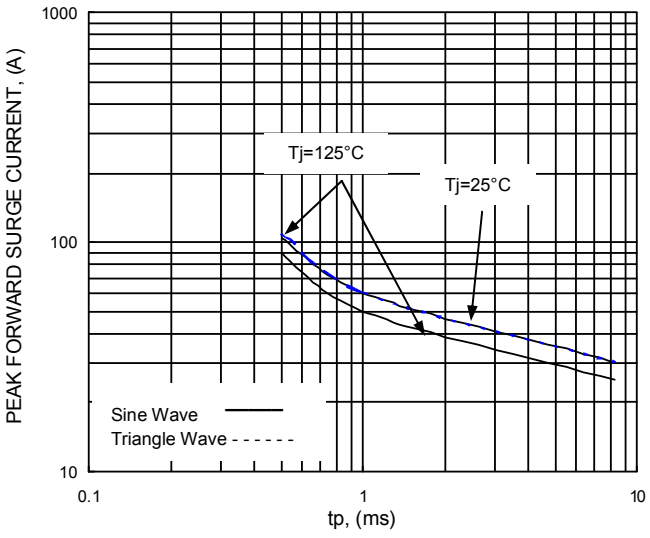


FIG.6_NON-REPETITIVE SURGE CURRENT



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