High –Speed Switching Diode

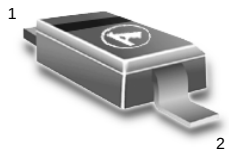
LMDL914T1G

S-LMDL914T1G

●FEATURES

1) We declare that the material of product compliant with RoHS requirements and Halogen Free.

2) S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



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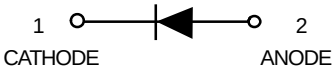

●DEVICE MARKING

Device	Marking	Shipping
LMDL914T1G	5D	3000/Tape&Reel
LMDL914T3G	5D	10000/Tape&Reel

●MAXIMUM RATINGS(Ta = 25℃)

Parameter	Symbol	Limits	Unit
Reverse Voltage	V_R	100	Vdc
Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

●THERMAL CHARACTERISTICS

Total Device Dissipation, FR−5 Board (Note 1) @ T_A = 25°C Derate above 25°C	P_D	 200 1.57	 mW mW/℃
Thermal Resistance, Junction–to–Ambient(Note 1)	$R_{\Theta JA}$	635	℃/W
Junction and Storage temperature	T_J,Tstg	−55～+150	℃

1. FR–5 = 1.0×0.75×0.062 in.

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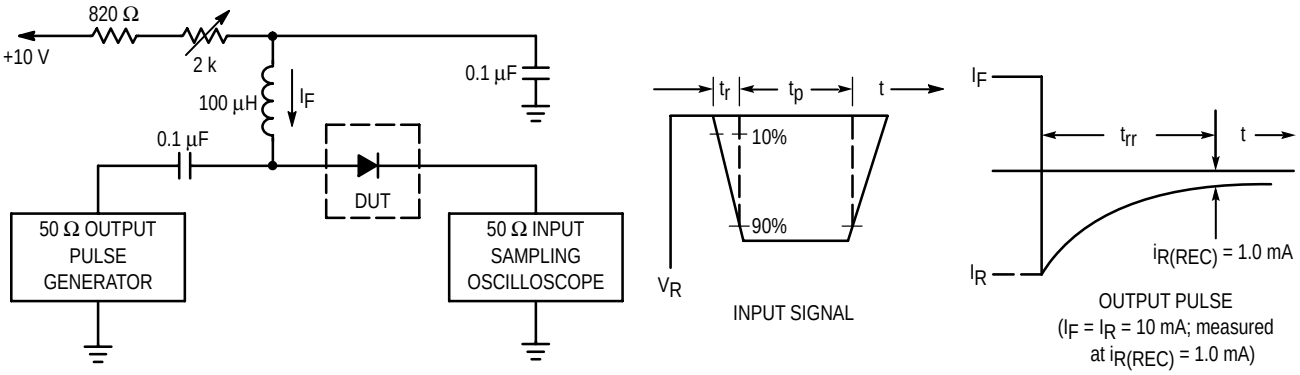
●ELECTRICAL CHARACTERISTICS (Ta= 25℃)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage (I_R = 100μAdc)	V_{BR}	100	–	–	V
Reverse Voltage Leakage Current (V_R = 20Vdc) (V_R = 75 Vdc)	I_R	–	–	25 5	nA μA
Diode Capacitance (V_R = 0, f = 1.0 MHz)	C_T	–	–	4	pF
Forward Voltage (I_F = 10 mAdc)	V_F	–	–	1	V
Reverse Recovery Time (I_F = I_R = 10 mAdc) (Figure 1)	t_{rr}	–	–	4	ns



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

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ELECTRICAL CHARACTERISTICS CURVES

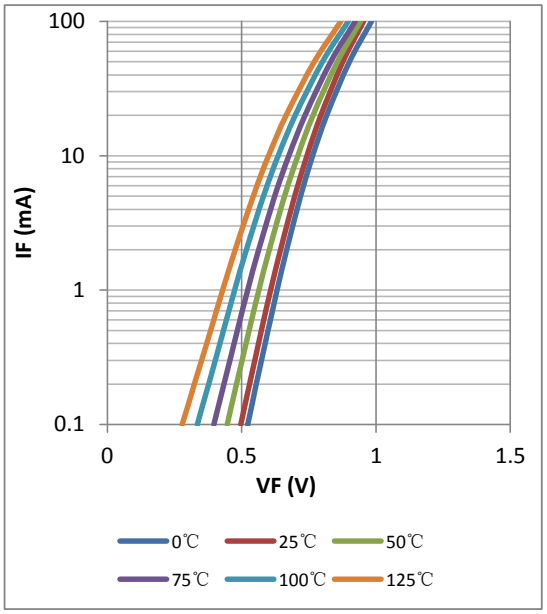

Fig 2. Forward character

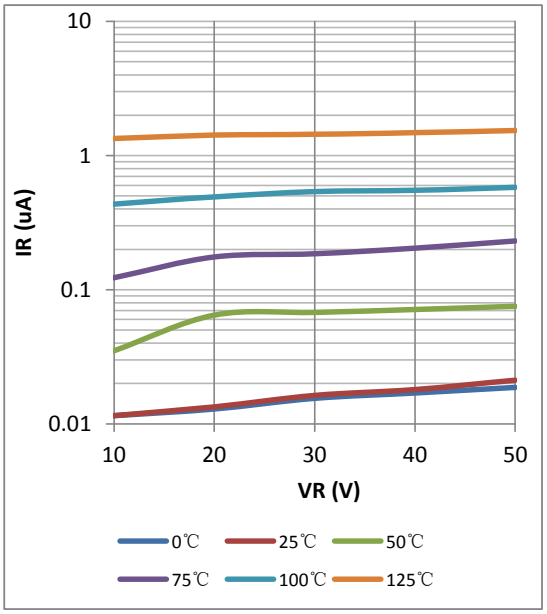

Fig 3. Reverese character

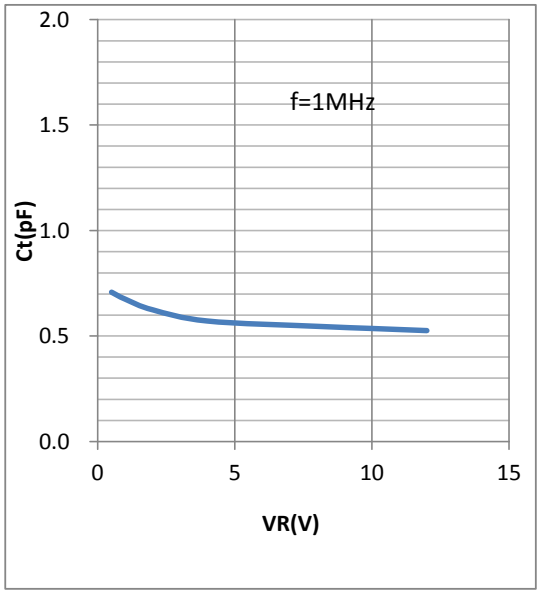

Fig 4. Capacitance between terminals character

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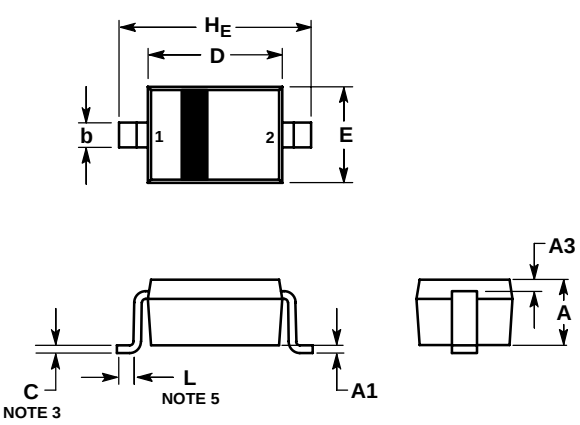

NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
5. DIMENSION L IS MEASURED FROM END OF RADIUS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3		0.15 REF			0.006 REF	
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*