

# Switching Diode

**●Applications**

Ultra high speed switching

**●Features**

- 1) Multiple diodes in one small surface mount package.
- 2) Diode characteristics are matched in the package.
- 3) Pb-Free Package is Available.
- 4) S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

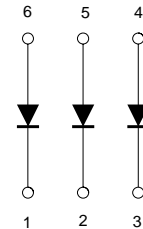
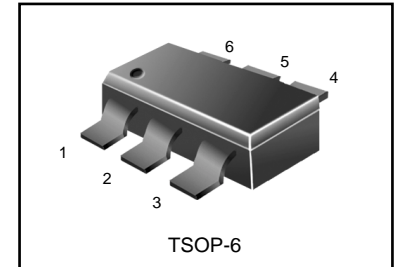
**●Construction**

Silicon epitaxial planar

**●Device Marking Ordering Information**

Device	Marking	Shipping
LIMN10T1G S-LIMN10T1G	N10	3000 Tape&Reel
LIMN10T3G S-LIMN10T3G	N10	10000 Tape&Reel

**LIMN10T1G**  
**S-LIMN10T1G**



**●Absolute maximum ratings (Ta=25°C)**

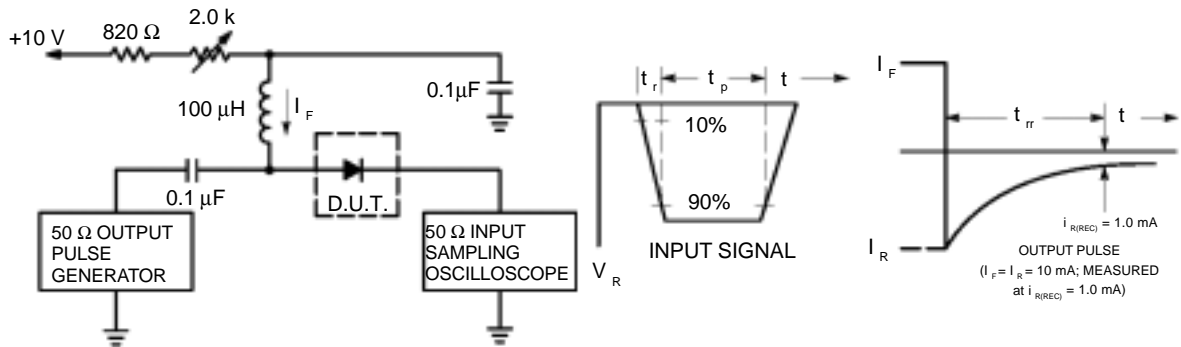
Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	80	V
DC reverse voltage	$V_R$	80	V
Peak forward current	$I_{FM}$	300	mA
Mean rectifying current	$I_O$	100	mA
Surge current (1us)	$I_{surge}$	4	A
Power dissipation (total)	$P_d$	300 *1	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{slg}$	- 55 ~ +150	°C

\*1 Not to exceed 200mW per element.

**●Electrical characteristics (Ta=25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	1.2	V	$I_F=100mA$
Reverse current	$I_R$	-	-	0.1	$\mu A$	$V_R=70V$
Capacitance between terminals	$C_T$	-	-	3.5	pF	$V_R=6V, f=1MHz$
Reverse recovery time	$t_{rr}$	-	-	4	ns	$V_R=6V, I_F=5mA$

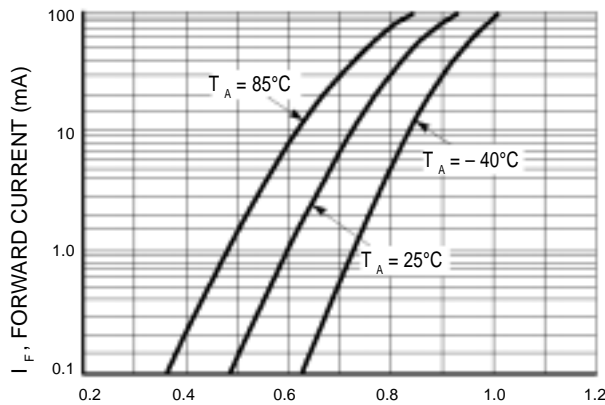
# LIMN10T1G, S-LIMN10T1G



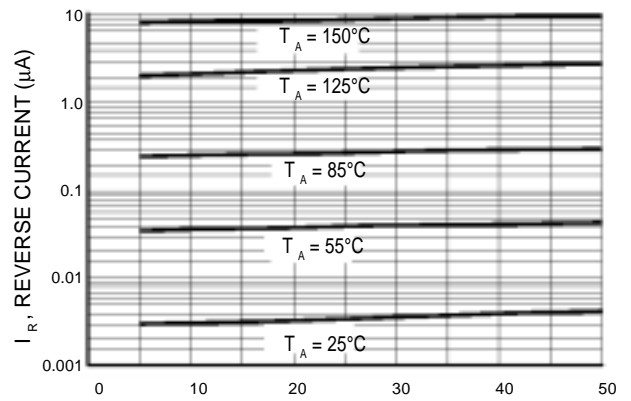
- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10mA.
- 2. Input pulse is adjusted so  $I_{R(peak)}$  is equal to 10mA.
- 3.  $t_p \gg t_{rr}$

**Figure 1. Recovery Time Equivalent Test Circuit**

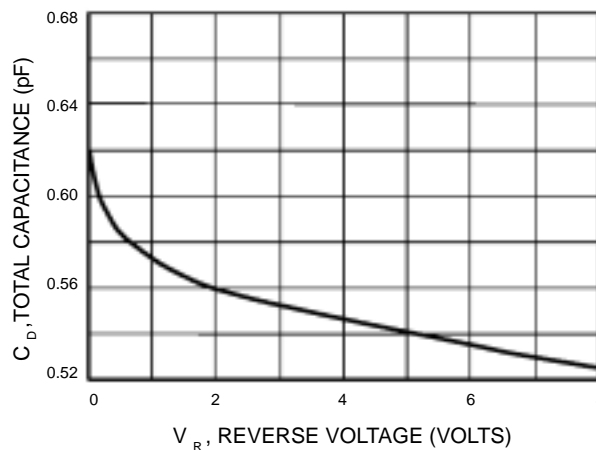
## CURVES APPLICABLE TO EACH DIODE



**Figure 2. Forward Voltage**



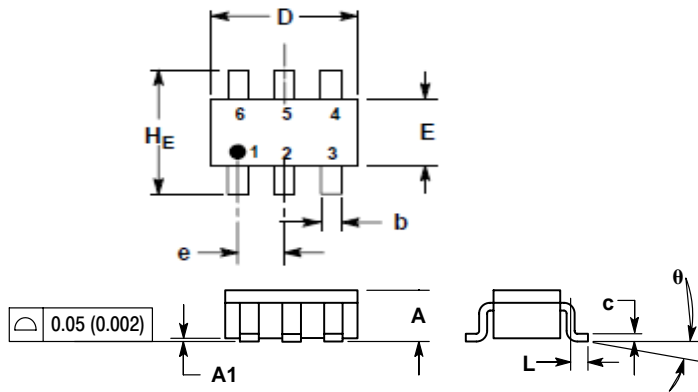
**Figure 3. Leakage Current**



**Figure 4. Capacitance**

# LIMN10T1G, S-LIMN10T1G

## TSOP-6



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	1.00	1.10	0.035	0.039	0.043
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.25	0.37	0.50	0.010	0.015	0.020
c	0.10	0.18	0.26	0.004	0.007	0.010
D	2.90	3.00	3.10	0.114	0.118	0.122
E	1.30	1.50	1.70	0.051	0.059	0.067
e	0.85	0.95	1.05	0.034	0.037	0.041
L	0.20	0.40	0.60	0.008	0.016	0.024
HE	2.50	2.75	3.00	0.099	0.108	0.118
θ	0°	-	10°	0°	-	10°

### SOLDERING FOOTPRINT\*

