

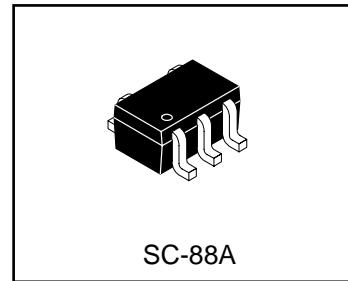
## Dual NPN Digital Transistor

- Pb-Free Package is Available.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

**LUMG10NT1G  
S-LUMG10NT1G**

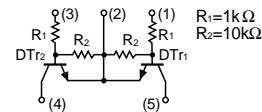
### Ordering Information

Device	Marking	Shipping
LUMG10NT1G S-LUMG10NT1G	N2	3000/Tape&Reel
LUMG10NT3G S-LUMG10NT3G	N2	10000/Tape&Reel



### ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Rating	Symbol	Value	Unit
Supply voltage	$V_{CC}$	50	Vdc
Input voltage	$V_{IN}$	-5 to +10	Vdc
Output current	$I_O$	100	mA
Power dissipation	$P_D$	150	mW
Storage Temperature	$T_{STG}$	-55 to +150	°C



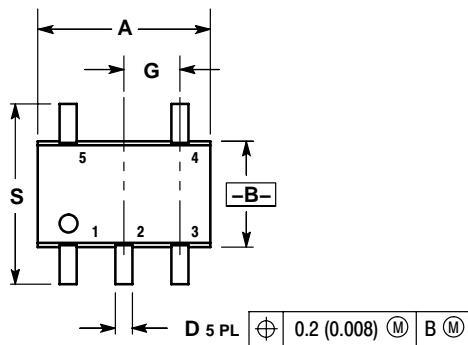
### ●Electrical characteristics ( $T_A = 25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	—	—	0.3	V	$V_{CC}=5\text{V}$ , $I_O=100\mu\text{A}$
Input voltage	$V_{I(on)}$	3	—	—	V	$V_O=0.3\text{V}$ , $I_O=20\text{mA}$
Output voltage	$V_{O(on)}$	—	0.1	0.3	V	$I_O=10\text{mA}$ , $I_{II}=0.5\text{mA}$
Input current	$I_I$	—	—	7.2	mA	$V_I=5\text{V}$
Output current	$I_{O(off)}$	—	—	0.5	$\mu\text{A}$	$V_{CC}=50\text{V}$ , $V_I=0\text{V}$
DC current gain	$G_I$	33	—	—	V	$V_O=5\text{V}$ , $I_O=5\text{mA}$
Resistance ratio	$R_2/R_1$	8	10	12	—	—
Transition frequency	$f_T$	—	250	—	MHz	$V_{CE}=10\text{V}$ , $I_E=-5\text{mA}$ , $f=100\text{MHz}$
Input resistance	$R_I$	0.7	1	1.3	k $\Omega$	—

\* Transition frequency of the device

# **LUMG10NT1G;S-LUMG10NT1G**

## **SC-88A**



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20

