

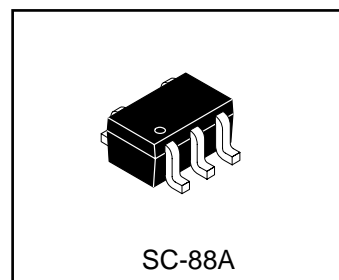
# Dual NPN Digital Transistor

- 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.

**LUMG2NT1G**  
**S-LUMG2NT1G**

## Ordering Information

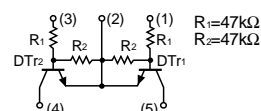
Device	Marking	Shipping
LUMG2NT1G S-LUMG2NT1G	G2	3000/Tape&Reel
LUMG2NT3G S-LUMG2NT3G	G2	10000/Tape&Reel



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

Rating	Symbol	Value	Unit
Supply voltage	V <sub>CC</sub>	50	Vdc
Input voltage	V <sub>IN</sub>	-10 to +40	Vdc
Output current	I <sub>O</sub>	30	mAdc
Output current	I <sub>C(Max.)</sub>	100	mAdc
Power dissipation	P <sub>D</sub>	150	mW *
Junction temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

\* 120mW per element must not be exceeded.



## ●Electrical characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V <sub>I(off)</sub>	-	-	0.5	V	V <sub>CC</sub> =5V, I <sub>O</sub> =100μA
Input voltage	V <sub>I(on)</sub>	3	-	-	V	V <sub>O</sub> = 0.3V, I <sub>O</sub> =2mA
Output voltage	V <sub>O(on)</sub>	-	0.1	0.3	V	I <sub>O</sub> =10 mA, I <sub>I</sub> =0.5mA
Input current	I <sub>I</sub>	-	-	0.18	mA	V <sub>I</sub> =5V
Output current	I <sub>O(off)</sub>	-	-	0.5	μA	V <sub>CC</sub> =50V, V <sub>I</sub> =0V
DC current gain	G <sub>I</sub>	68	-	-	V	V <sub>O</sub> = 5V, I <sub>O</sub> =5mA
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>	0.8	1	1.2	-	-
Transition frequency	f <sub>T</sub>	-	250	-	MHz	V <sub>CE</sub> =10V, I <sub>E</sub> = -5mA, f=100MHz *
Input resistance	R <sub>I</sub>	32.9	47	61.1	kΩ	-

\* Transition frequency of the device

# LUMG2NT1G;S-LUMG2NT1G

●Electrical characteristic curves

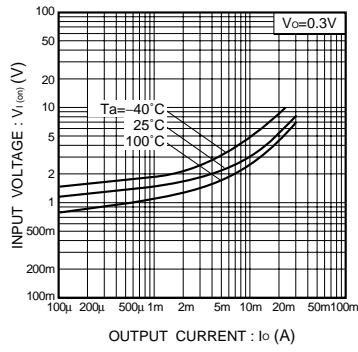


Fig.1 Input voltage vs. output current (on-characteristics)

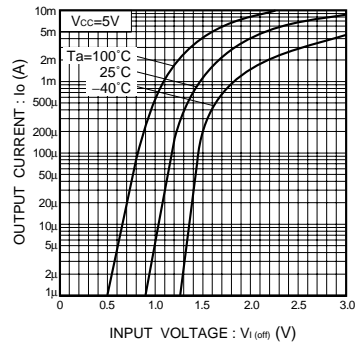


Fig.2 Output current vs. input voltage (off-characteristics)

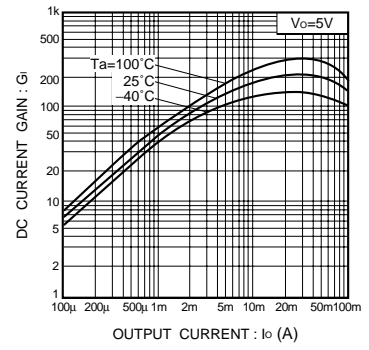


Fig.3 DC current gain vs. output current

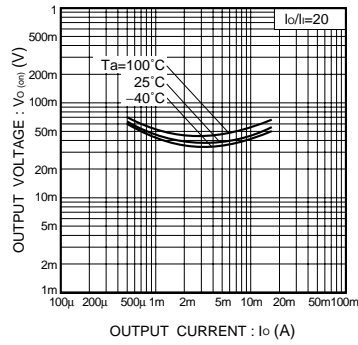
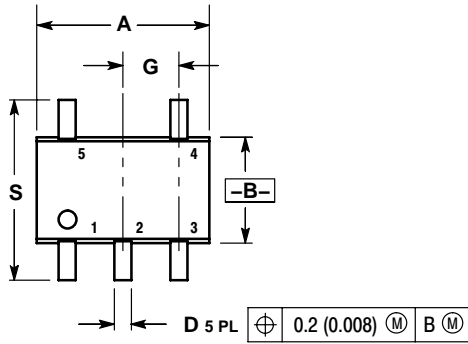


Fig.4 Output voltage vs. output current

# LUMG2NT1G;S-LUMG2NT1G

## 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

