

# D1NL40U

## Fast Recovery Diodes

400V, 1A

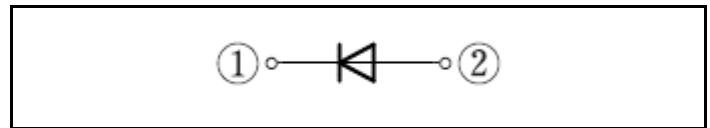
### Feature

- High Recovery Speed
- Pb free terminal
- RoHS:Yes

### OUTLINE



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		-55 to 150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		400	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=137°C	1	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C	0.9	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	50	A

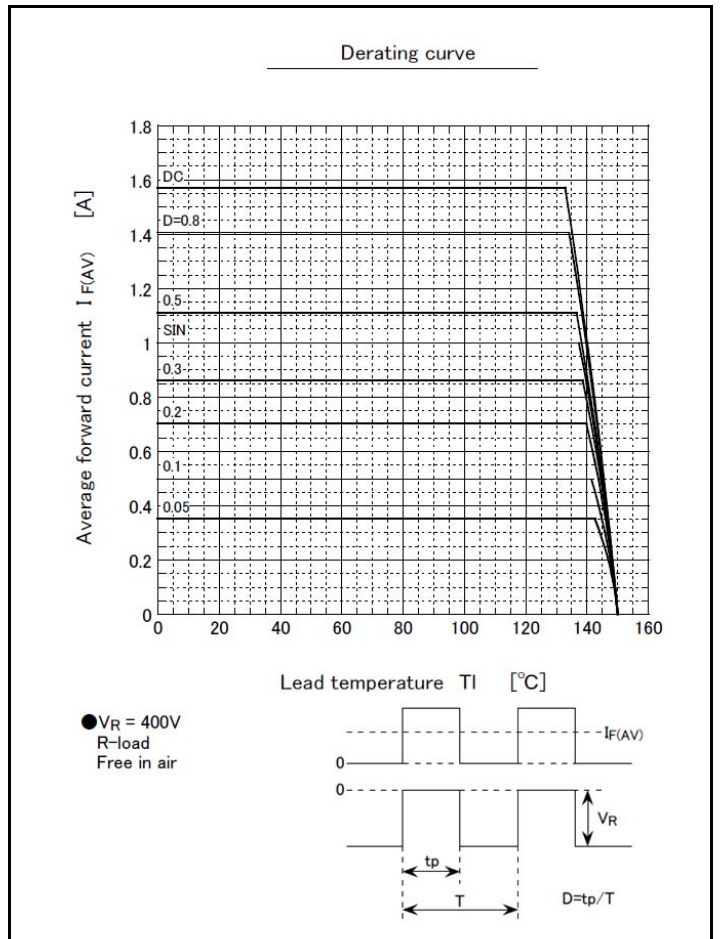
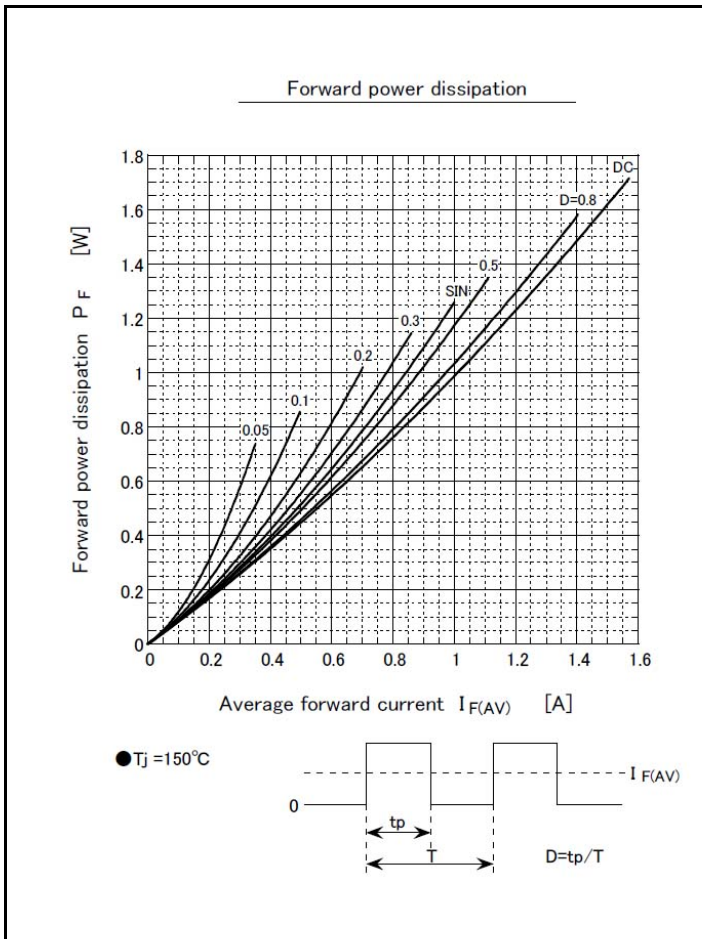
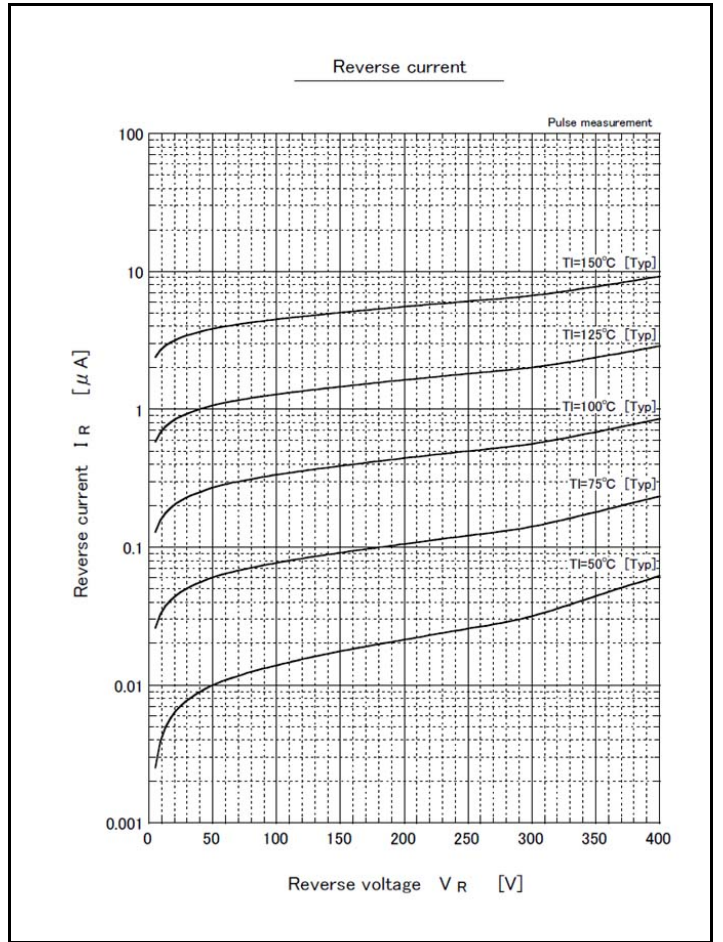
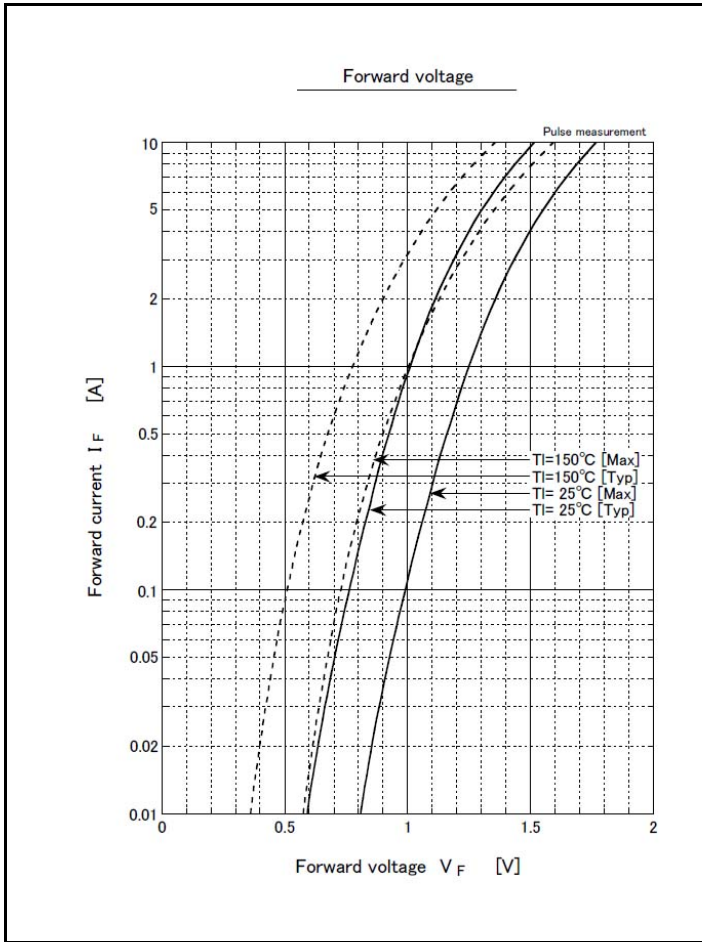
\* :See the original Specifications

**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

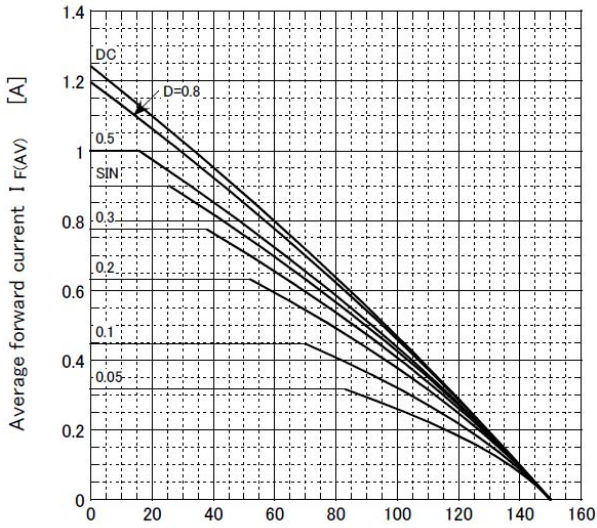
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	IF=1A, Pulse measurement			1.25	V
Reverse current	$I_R$	VR=400V, Pulse measurement			10	$\mu$ A
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			25	ns
Total capacitance	Ct	f=1MHz, VR=10V		12		pF
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate			10	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate			113	°C/W

\* :See the original Specifications

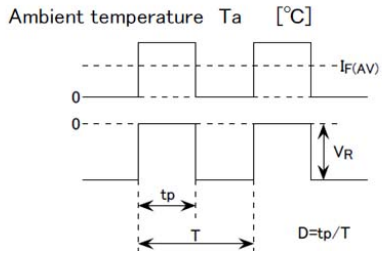
# CHARACTERISTIC DIAGRAMS



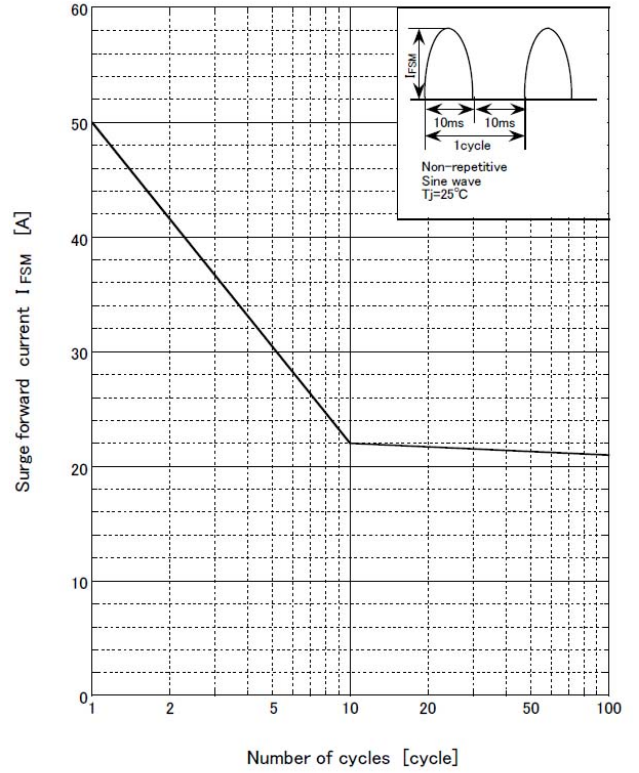
Derating curve



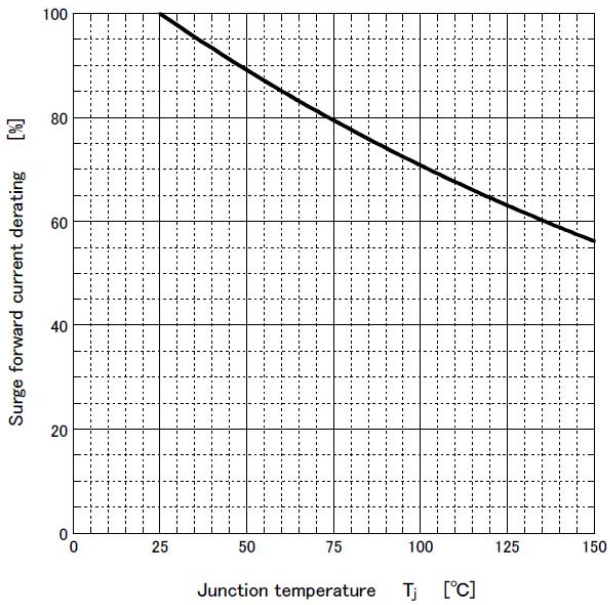
●  $V_R = 400V$   
R-load  
Free in air



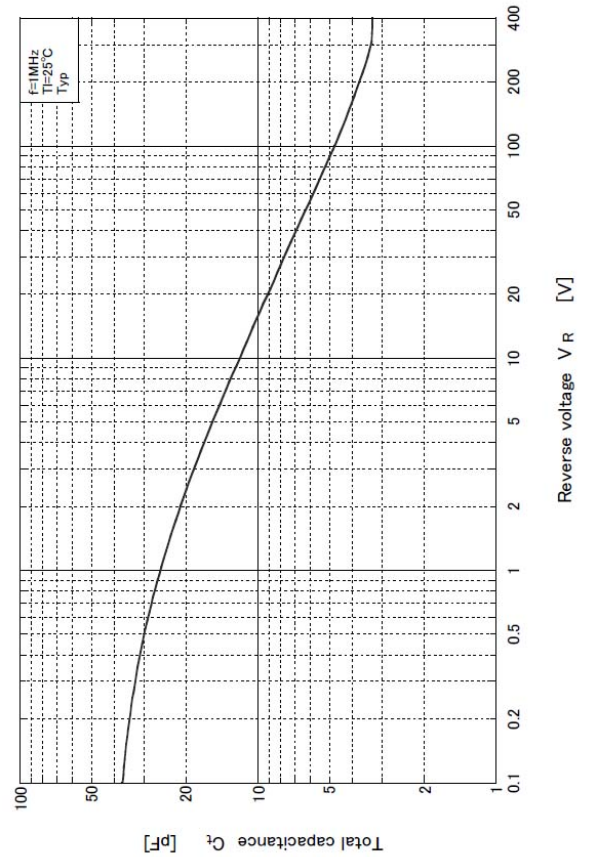
Surge forward current capability



Surge forward current derating vs Junction temperature



Total capacitance



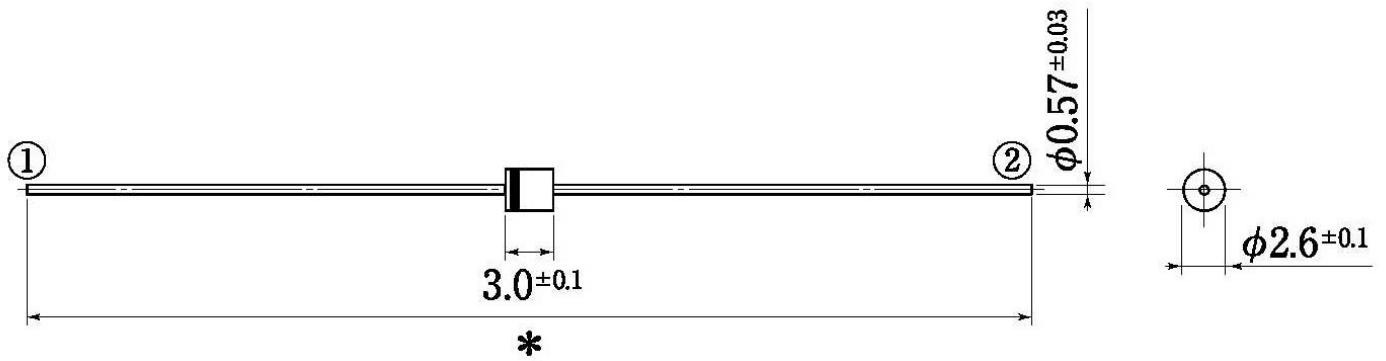
# Outline Dimensions

unit:mm

scale: 2/1

## A1

JEDEC Code	—
JEITA Code	—
House Name	AX057



\*  $\left( \begin{array}{l} 26.0^{+1.5}_{-0.0} \text{ (Spec Code: 5070)} \\ 52.0^{+2.0}_{-1.0} \text{ (Spec Code: 5060)} \end{array} \right)$



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