

D1NK60
Fast Recovery Diodes
600V, 0.8A

Feature

- High Voltage
- Low Noise
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX057



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		600	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=139°C ※	0.8	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=26°C ※	0.8	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	35	A

※ : See the original Specifications

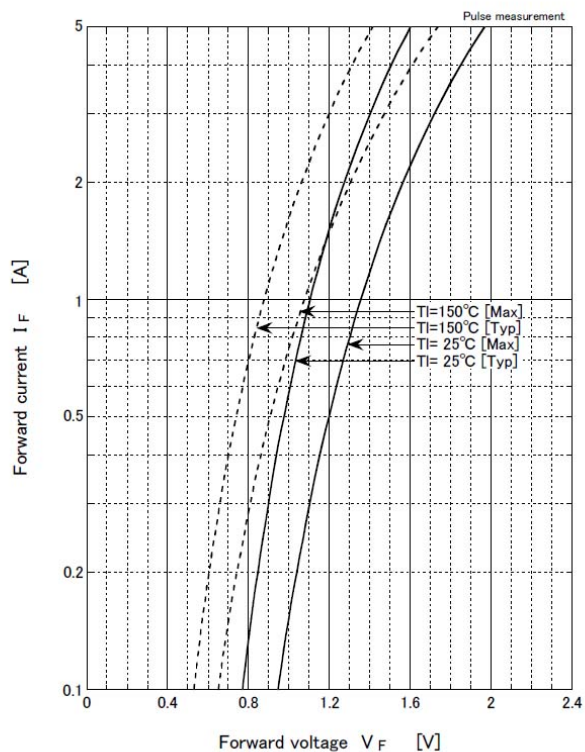
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=0.8A, Pulse measurement			1.3	V
Reverse current	I_R	VR=600V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			75	ns
Total capacitance	Ct	f=1MHz, VR=10V		8		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

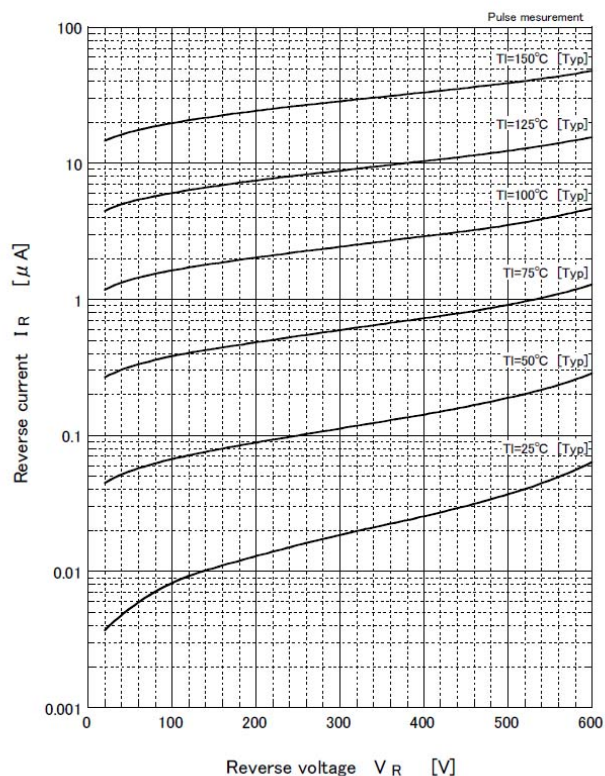
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

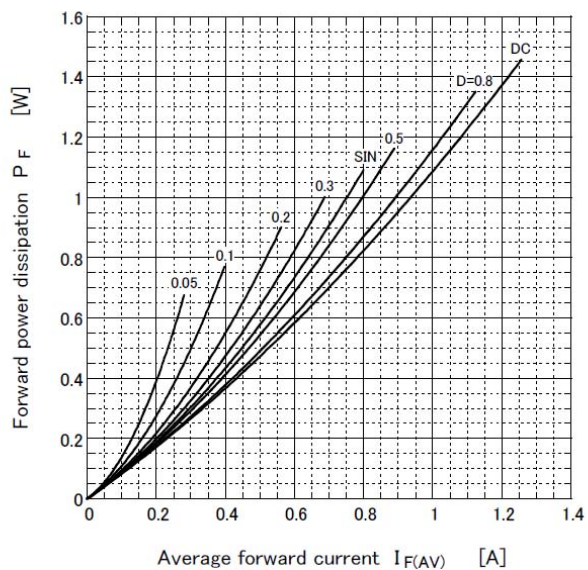
Forward voltage



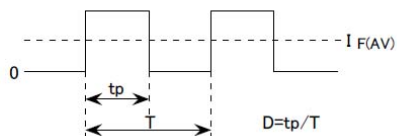
Reverse current



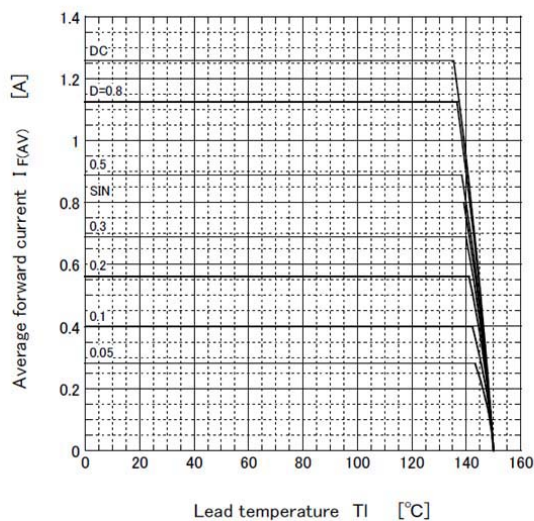
Forward power dissipation



● $T_J = 150^\circ\text{C}$



Derating curve



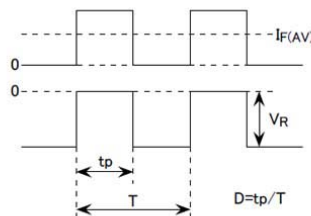
● $V_R = 600\text{V}$

R-load

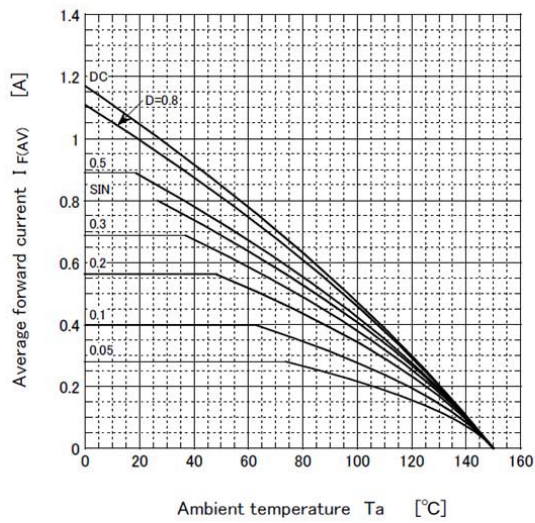
Free in air

● Substrate detail

Type	Glass/epoxy
Size	90mm X 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	306.1mm ²



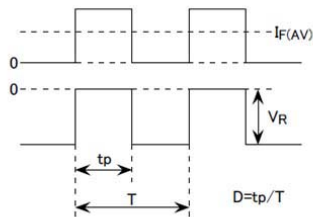
Derating curve



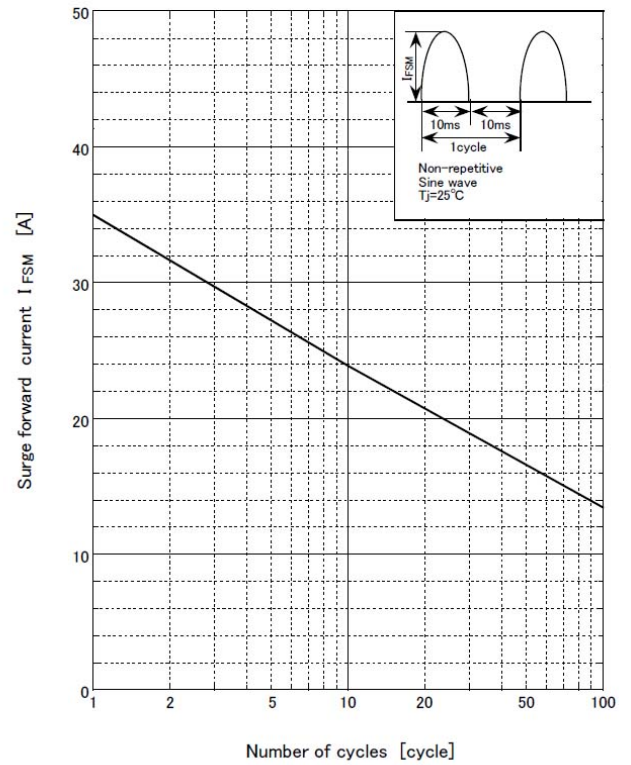
● $V_R = 600V$
R-load
Free in air

● Substrate detail

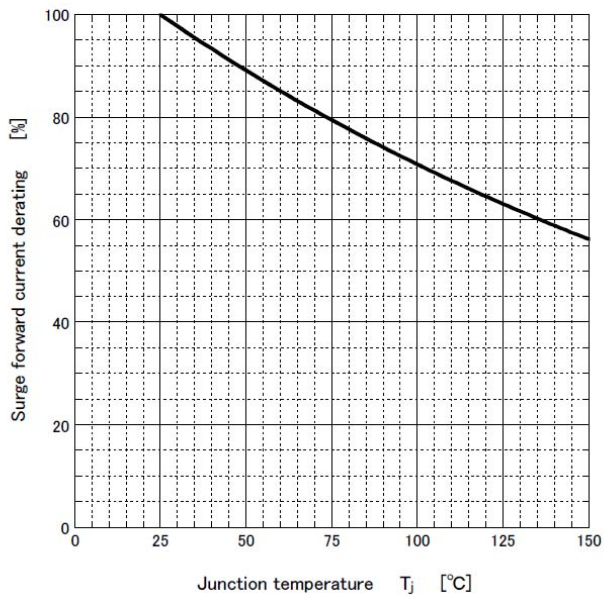
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Size	90mm X 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	306,1mm ²



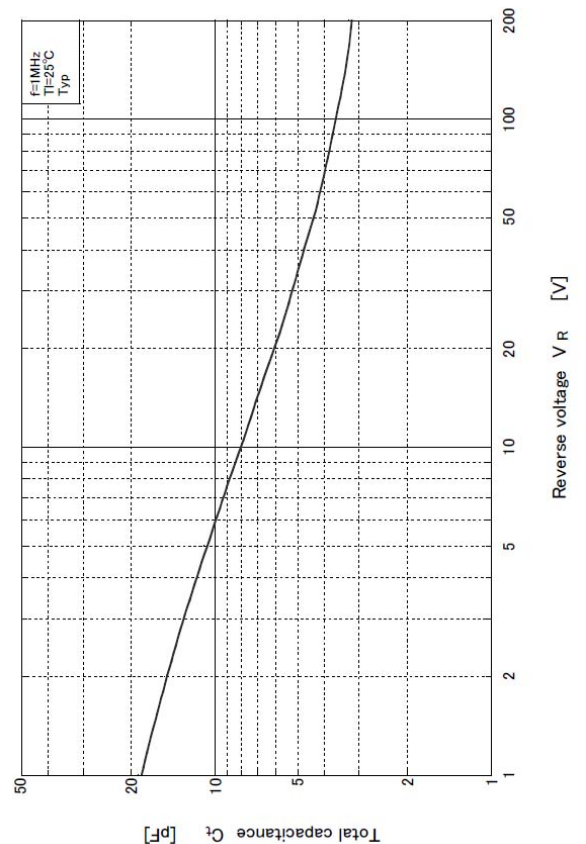
Surge forward current capability



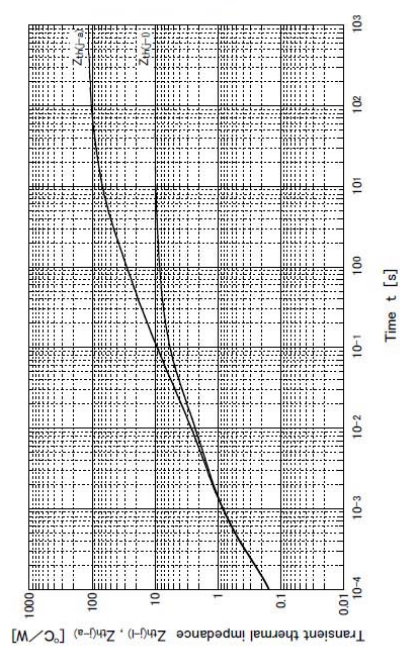
Surge forward current derating
vs Junction temperature



Total capacitance



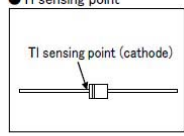
Transient thermal impedance



● Substrate detail

Type	Glass/epoxy
Size	90mm×150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	306.1mm ²

● TI sensing point



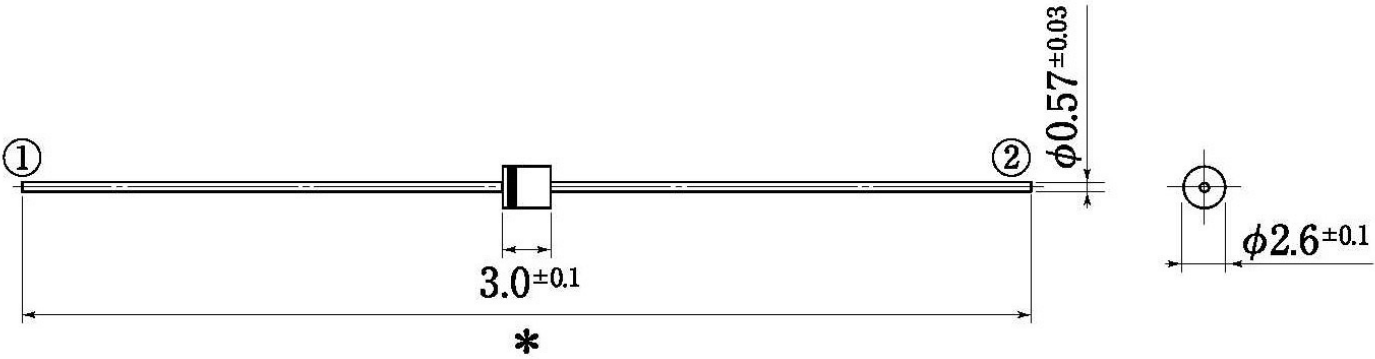
Outline Dimensions

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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