

D1NK100
Fast Recovery Diodes
1000V, 1A

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}		1000	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=127°C ※	1	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.6	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	30	A
Surge forward current	I _{FSM1}	tp=1ms, Sine wave, Non-repetitive, Peak value, Tj=25°C	55	A

※ :See the original Specifications

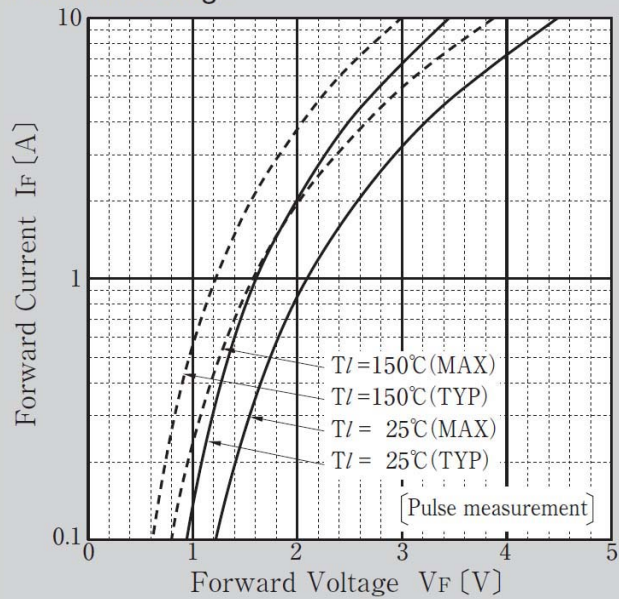
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=1A, Pulse measurement			2.1	V
Reverse current	I_R	VR=1000V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			75	ns
Reverse recovery time	trr	IF=1A, VR=400V, di/dt=-50A/μs, 0.25IR			85	ns
Total capacitance	Ct	f=1MHz, VR=10V		7.5		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

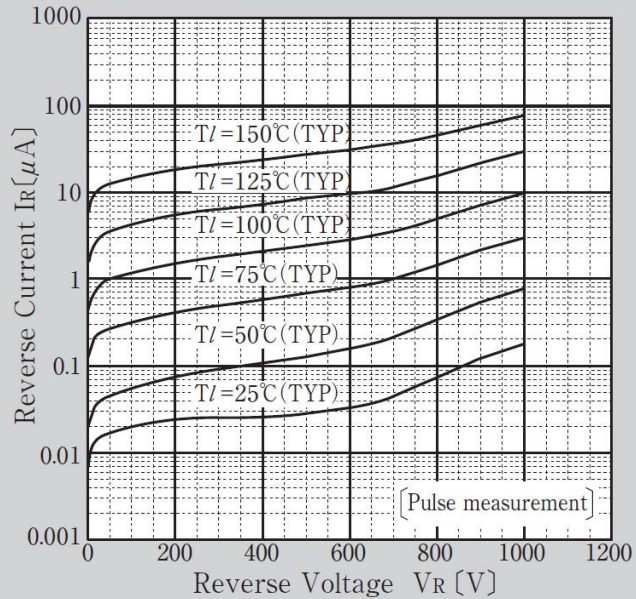
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

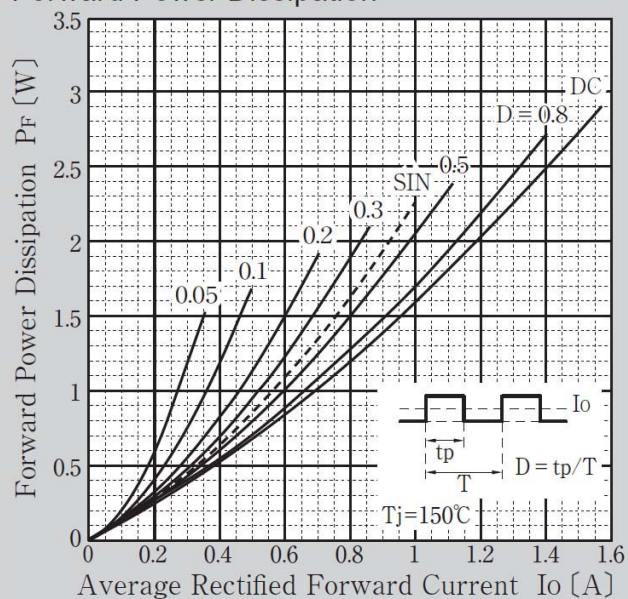
Forward Voltage



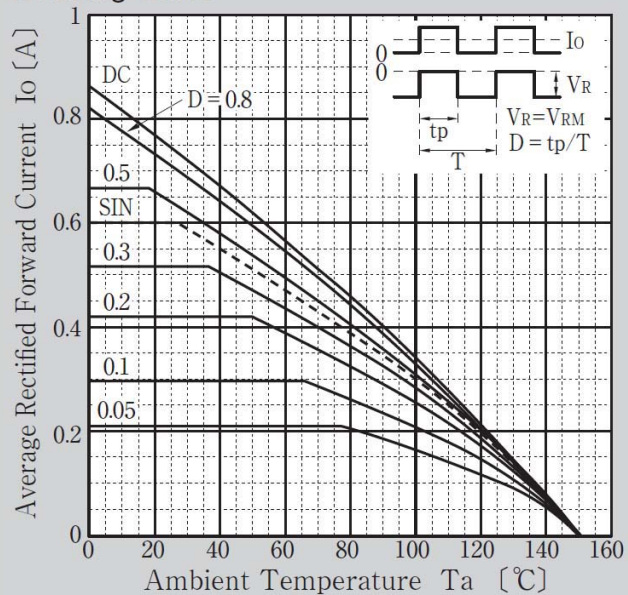
Reverse Current



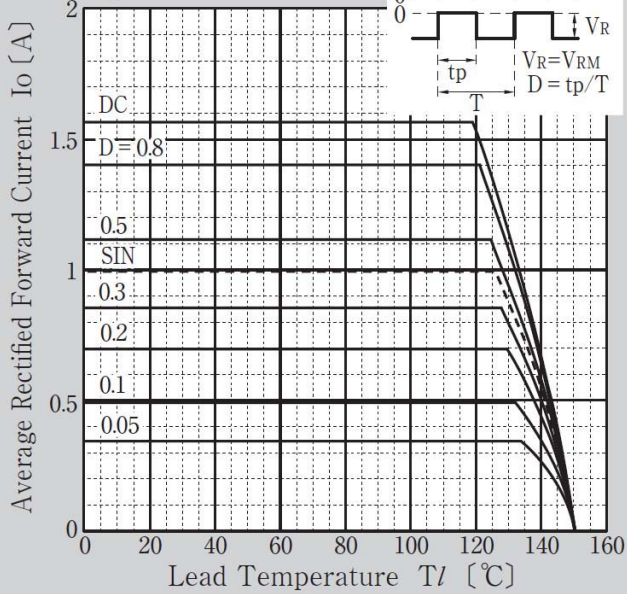
Forward Power Dissipation



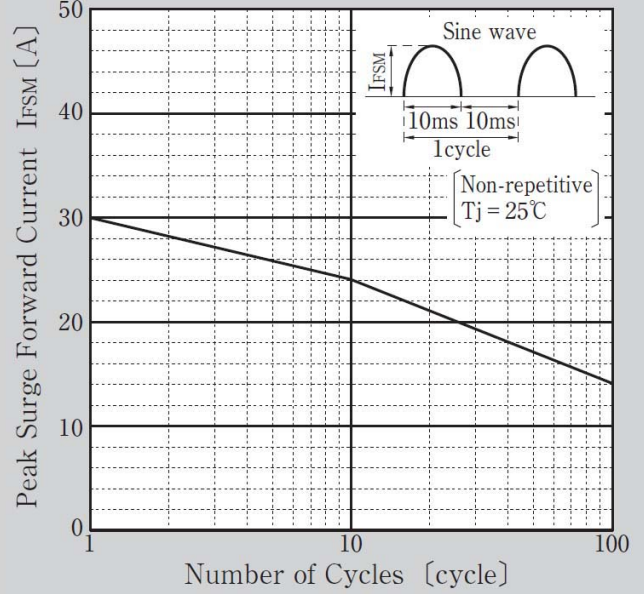
Derating Curve



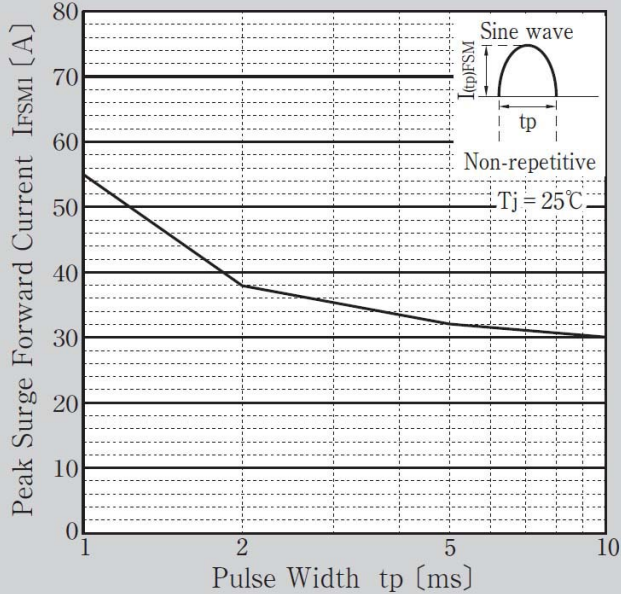
Derating Curve



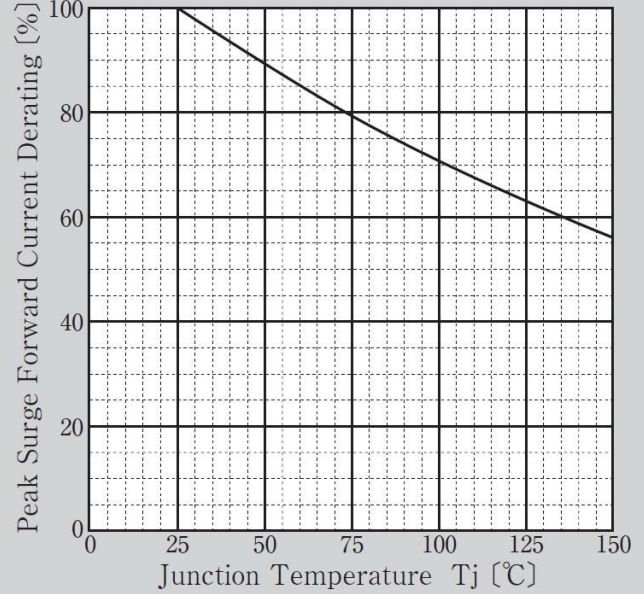
Peak Surge Forward Current Capability

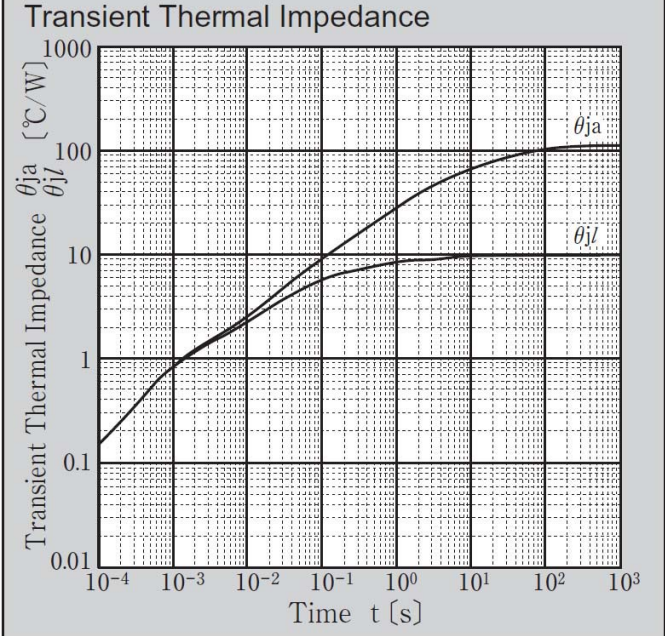
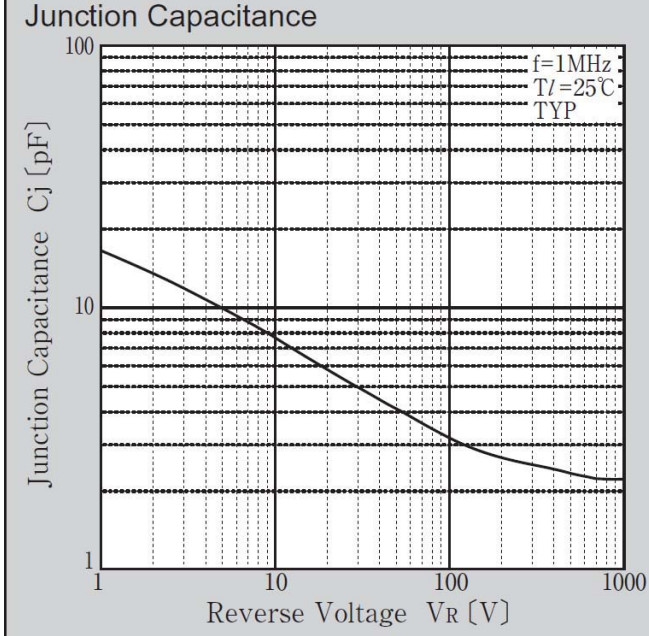


Peak Surge Forward Current Capability



Peak Surge Forward Current Derating vs Junction Temperature





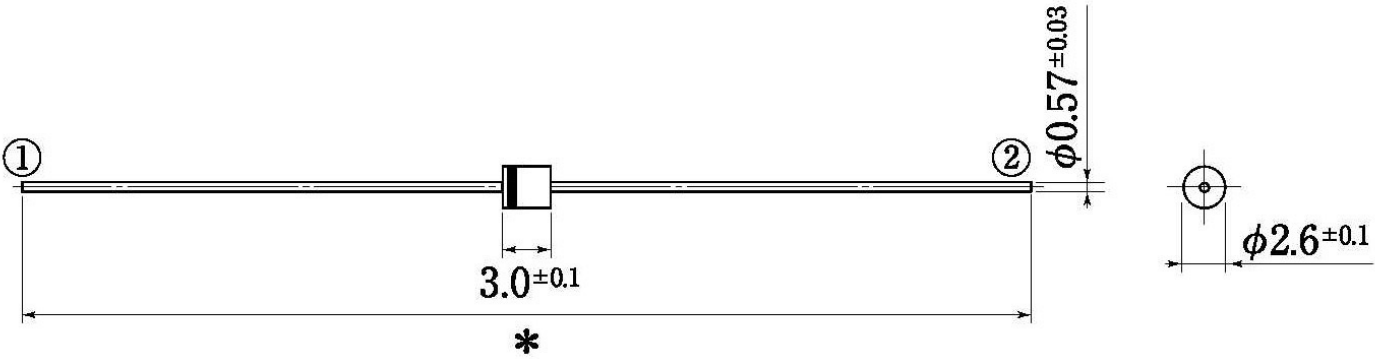
Outline Dimensions

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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