

D1NK100

Fast Recovery Diodes
1000V, 1A

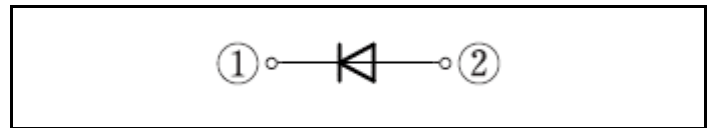
Feature

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

OUTLINE



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	VRRM		1000	V
Average forward current	IF(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=127°C ※	1	A
Average forward current	IF(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.6	A
Surge forward current	IFSM	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	30	A
Surge forward current	IFSM1	tp=1ms, Sine wave, Non-repetitive, Peak value, Tj=25°C	55	A

※ : See the original Specifications

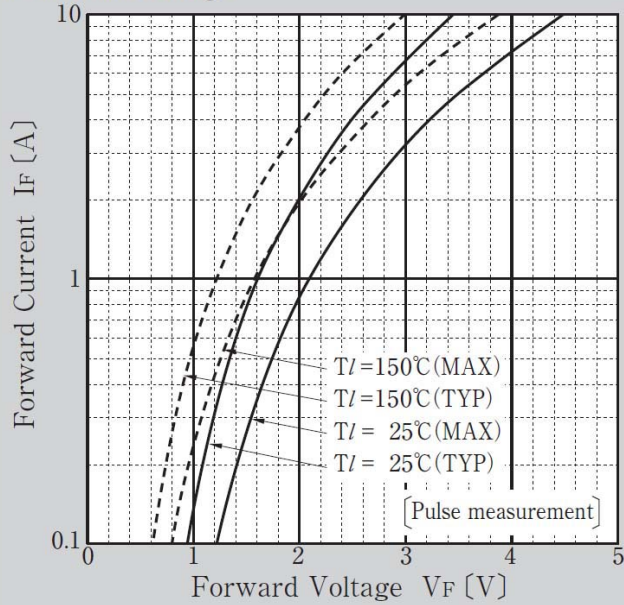
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=1A$, Pulse measurement			2.1	V
Reverse current	I_R	$V_R=1000V$, Pulse measurement			10	μA
Reverse recovery time	t_{rr}	$I_F=0.5A$, $I_R=1.0A$, $0.25I_R$			75	ns
Reverse recovery time	t_{rr}	$I_F=1A$, $V_R=400V$, $di/dt=-50A/\mu s$, $0.25I_R$			85	ns
Total capacitance	C_t	$f=1MHz$, $V_R=10V$		7.5		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate ※			10	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			113	$^{\circ}C/W$

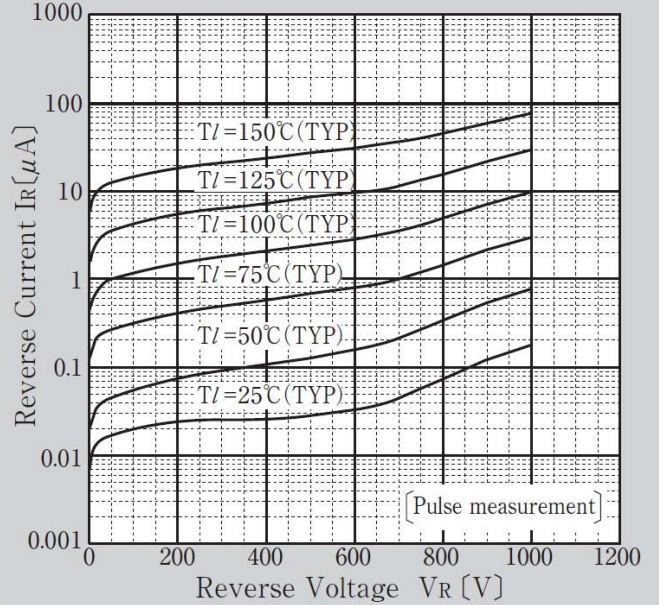
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

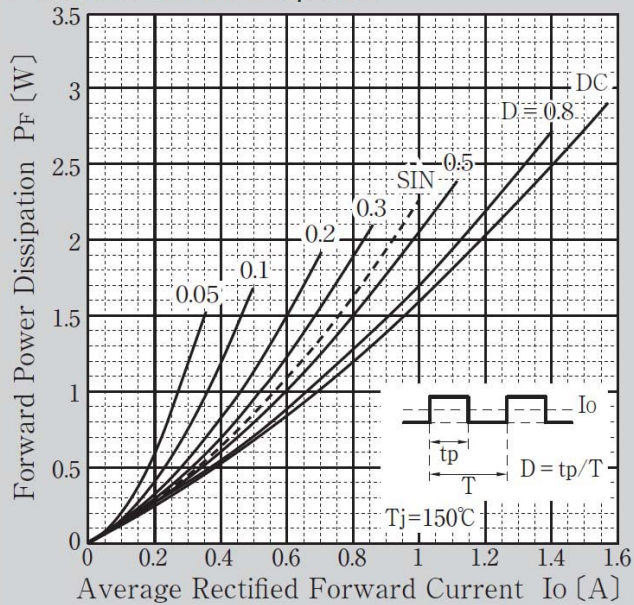
Forward Voltage



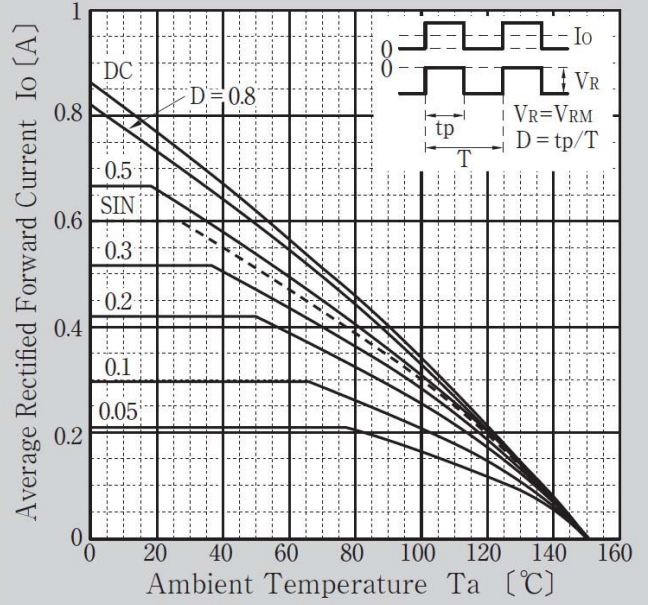
Reverse Current

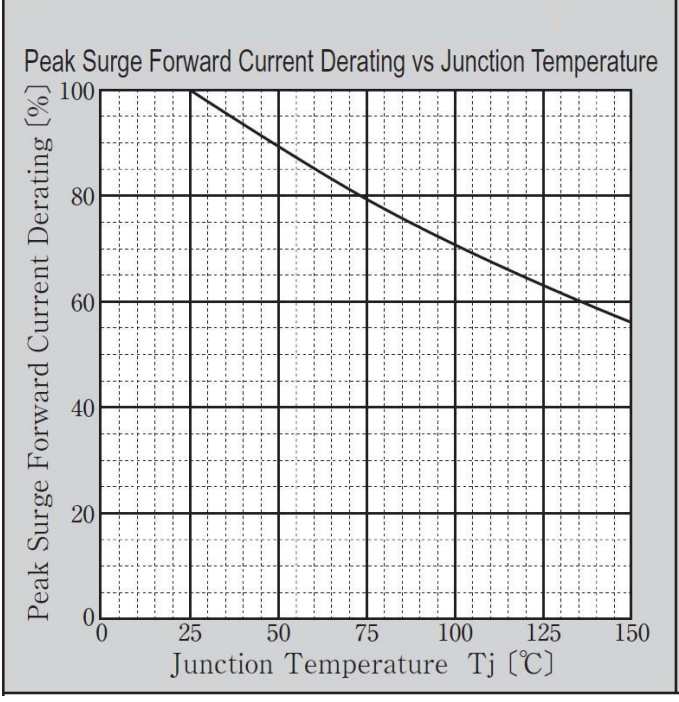
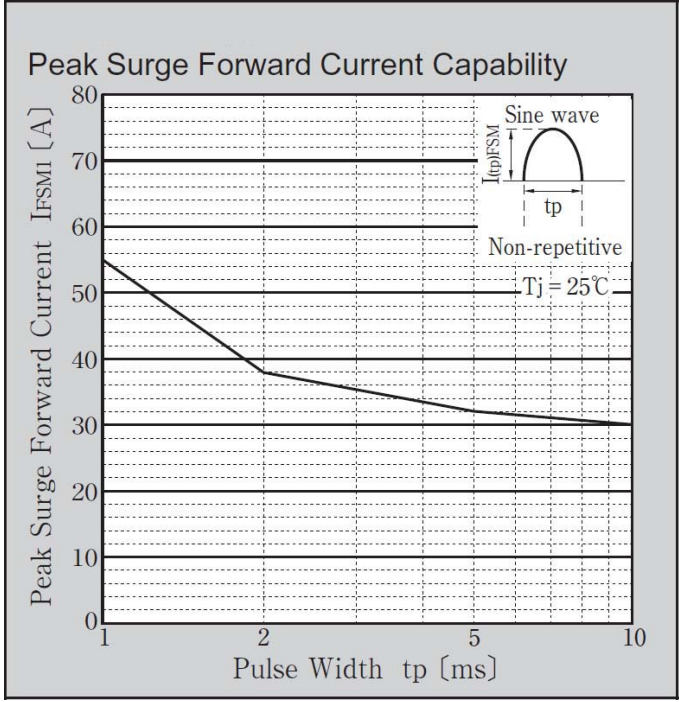
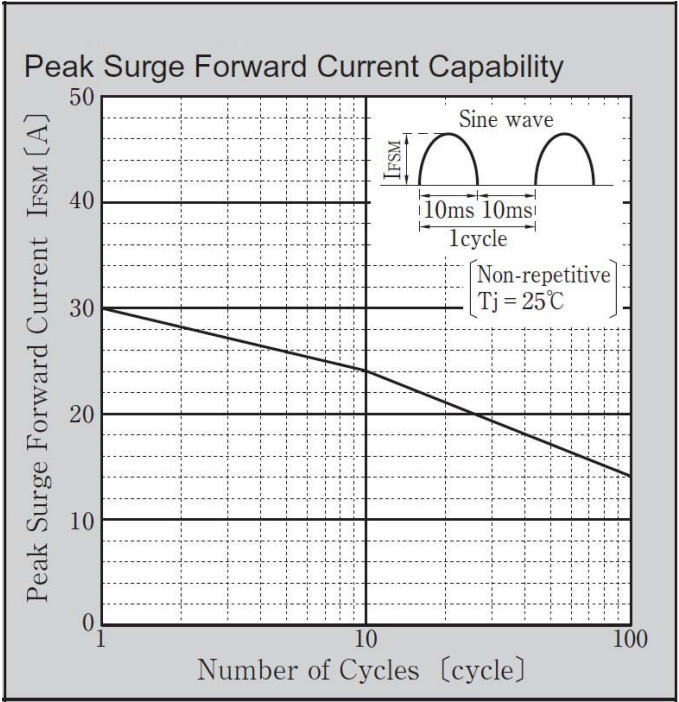
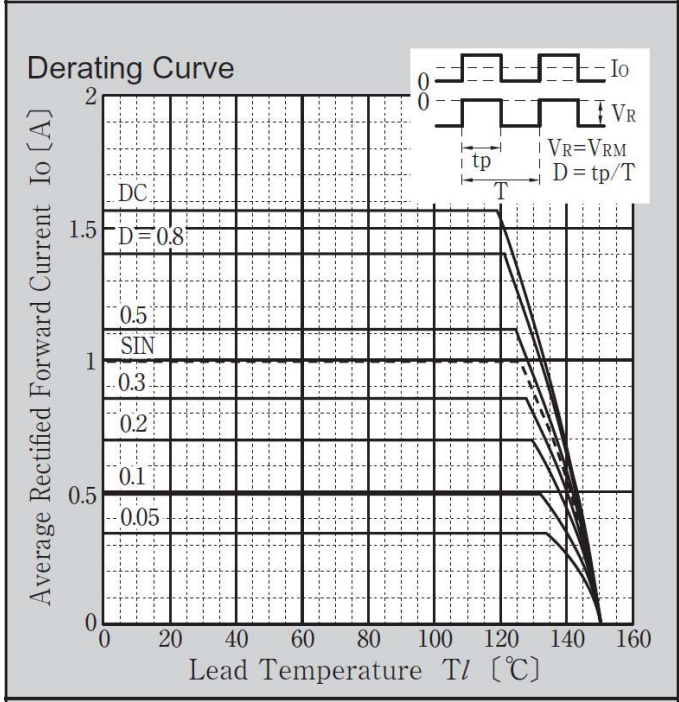


Forward Power Dissipation

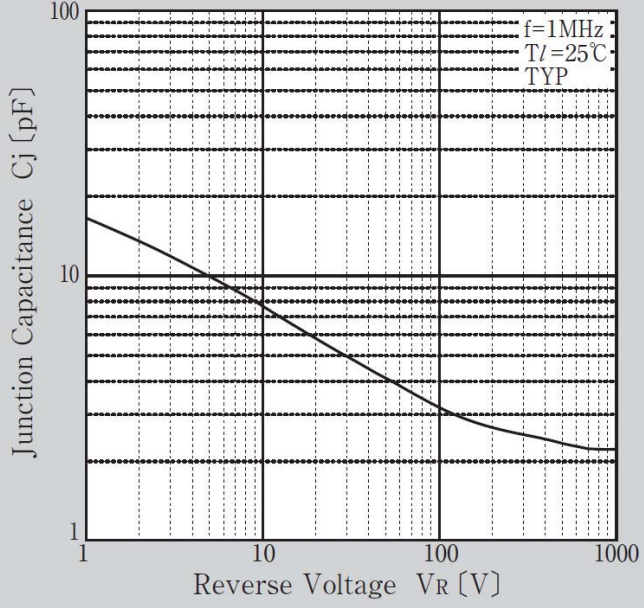


Derating Curve

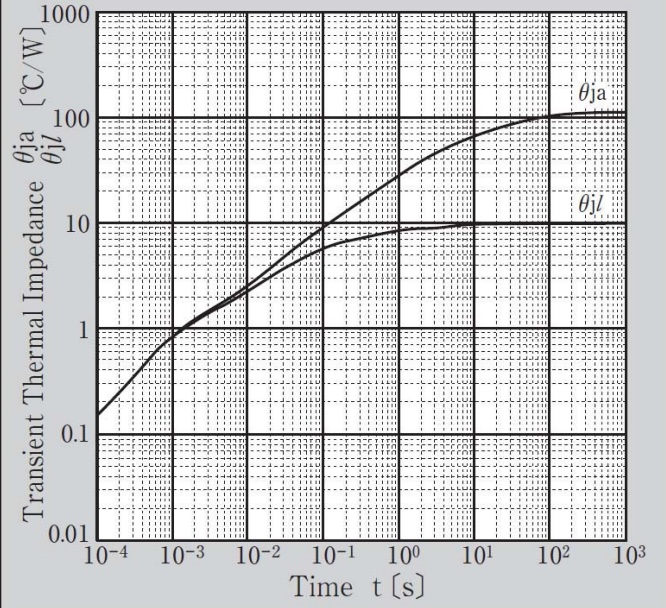




Junction Capacitance



Transient Thermal Impedance



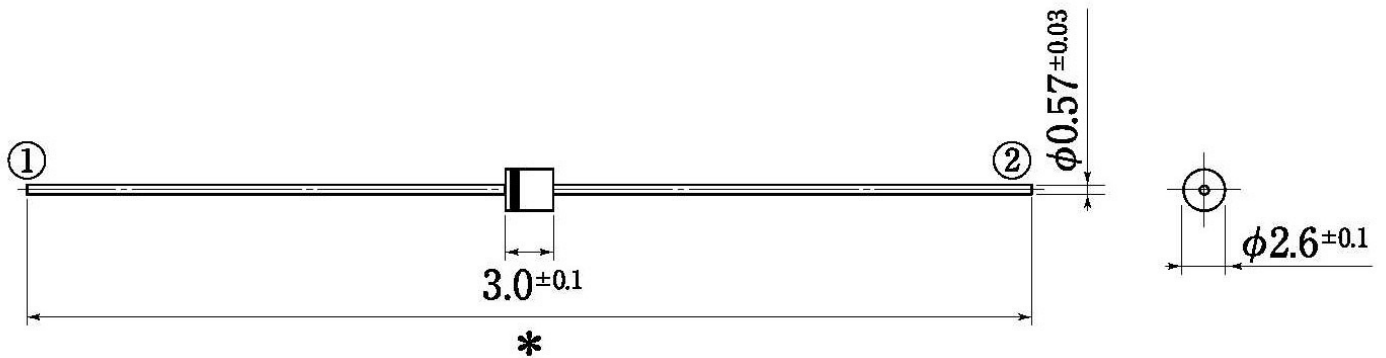
Outline Dimensions

unit:mm

scale: 2/1

A1

JEDEC Code	—
JEITA Code	—
House Name	AX057



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

Notes

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