

D1NS4

Schottky Barrier Diodes

40V, 1A

Feature

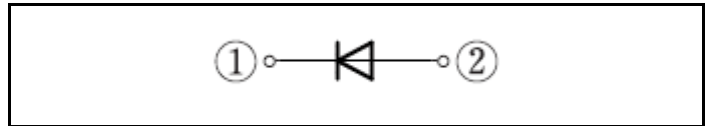
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX057



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		40	V
Repetitive peak surge reverse voltage	V _{RRSM}	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=59°C	1	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, T _j =125°C	30	A
Repetitive peak surge reverse power	P _{RRSM}	Pulse width 10μs, T _j =25°C	60	W

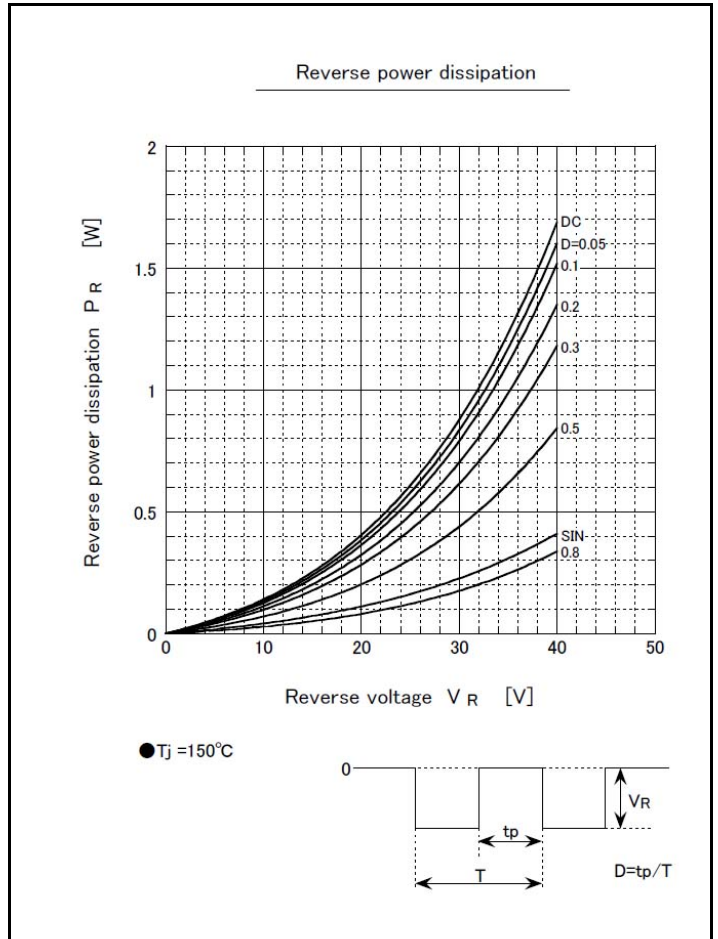
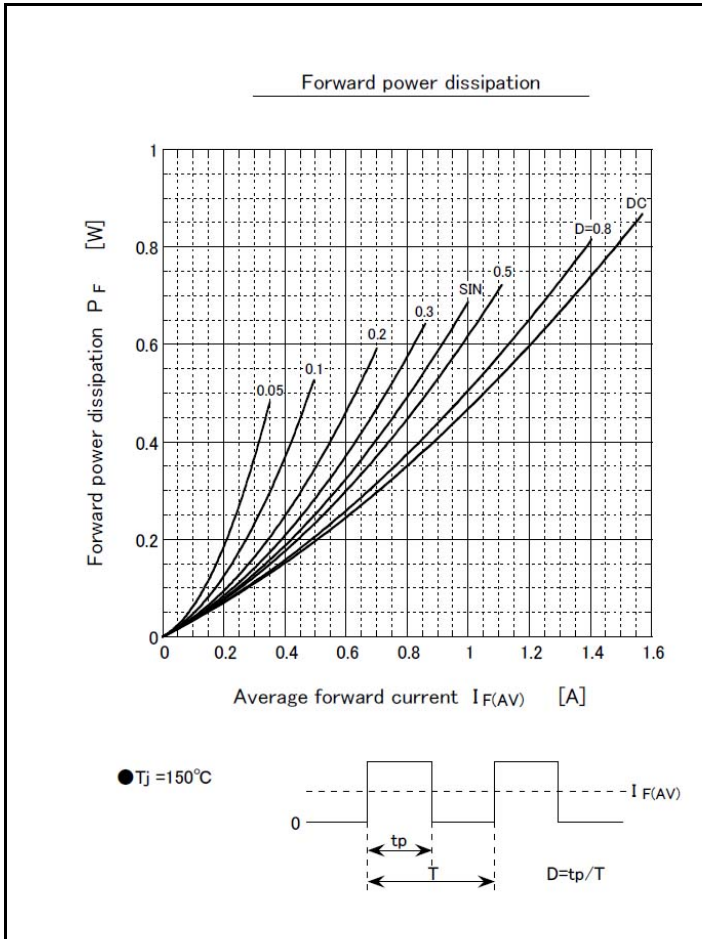
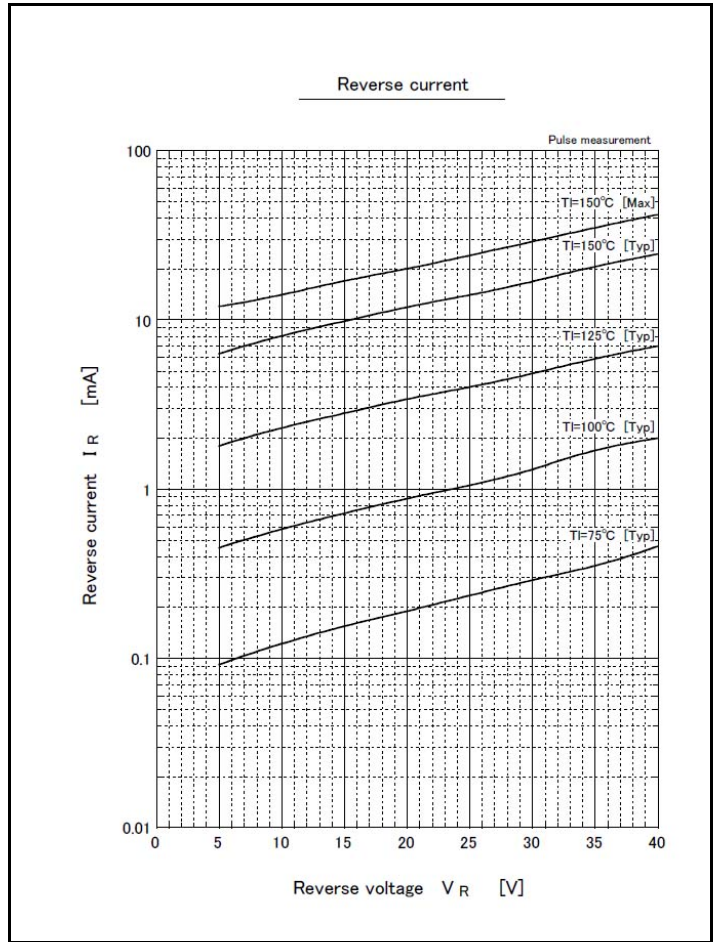
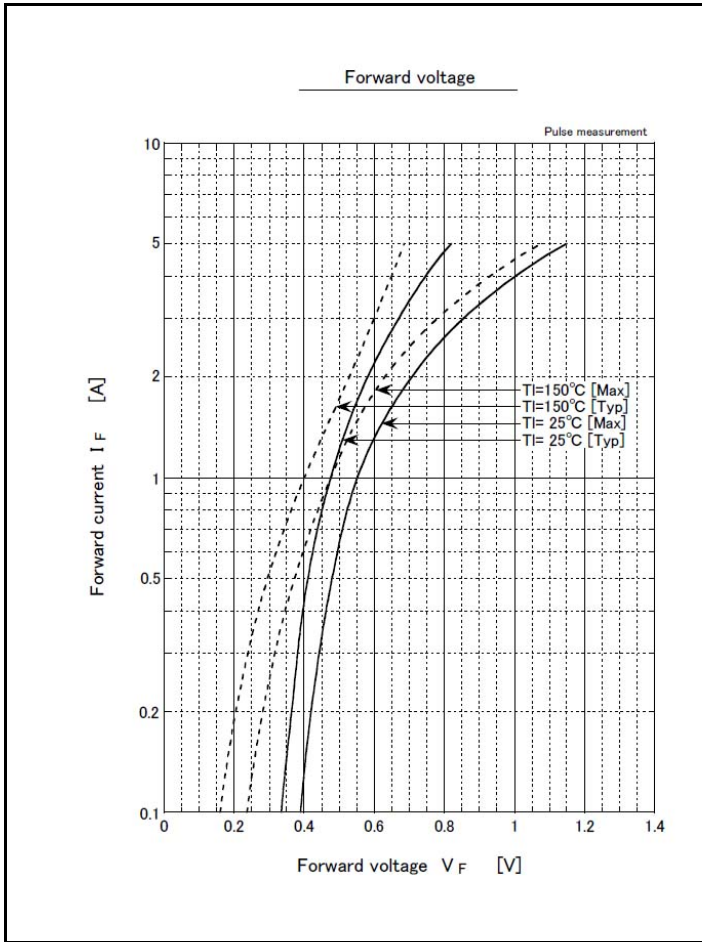
* :See the original Specifications

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

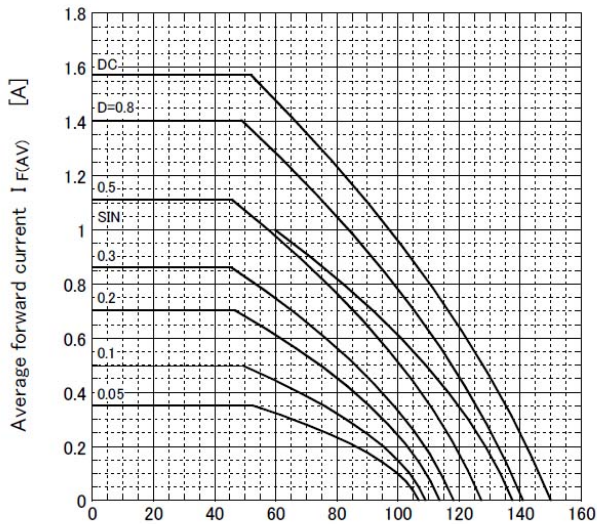
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=1A$, Pulse measurement			0.55	V
Reverse current	I_R	$V_R=40V$, Pulse measurement			0.8	mA
Total capacitance	C_t	$f=1MHz$, $V_R=10V$		50		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate			10	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate			113	°C/W

* :See the original Specifications

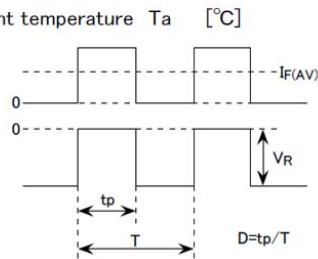
CHARACTERISTIC DIAGRAMS



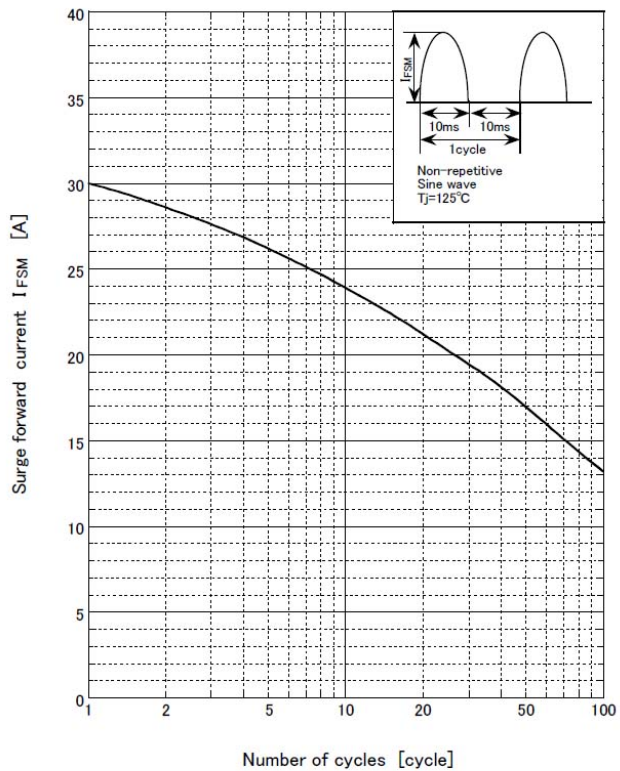
Derating curve



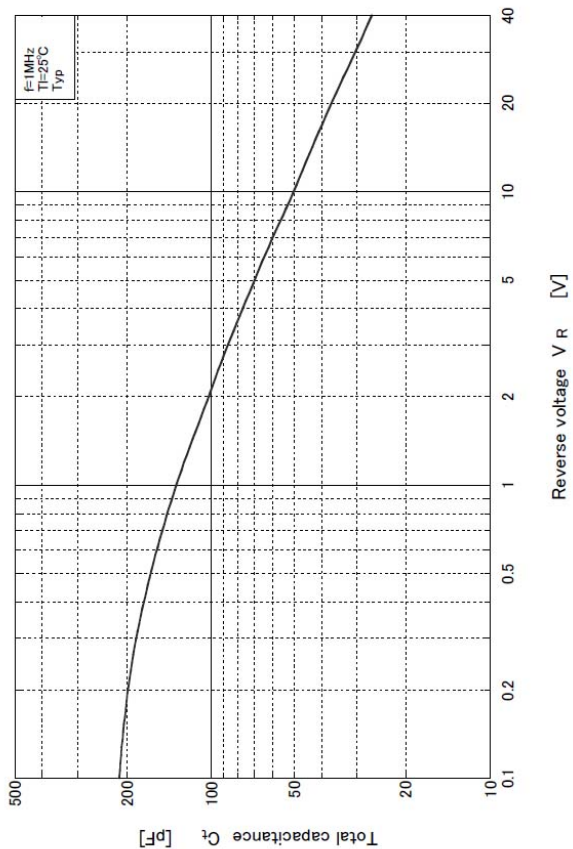
● $V_R = 20V$
R-load
Free in air



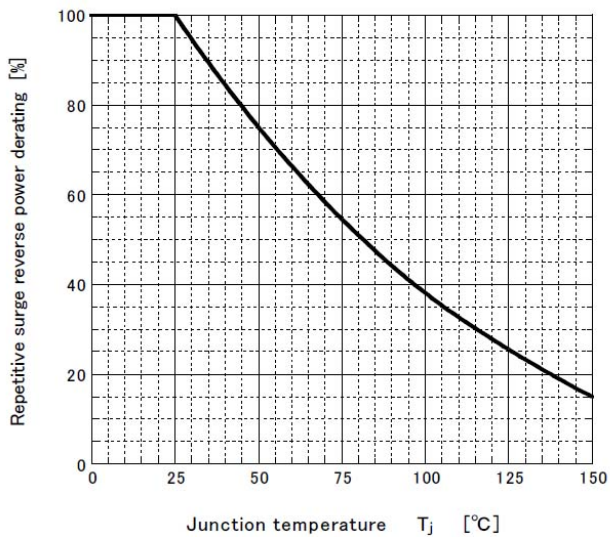
Surge forward current capability



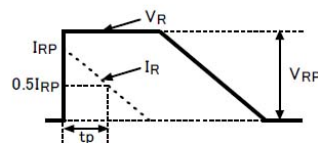
Total capacitance



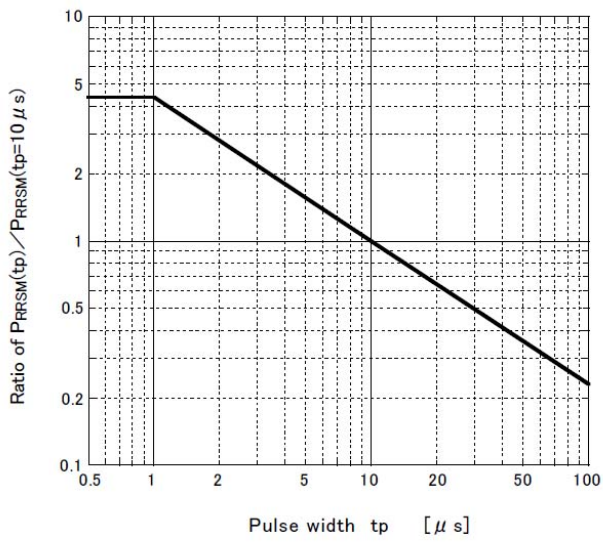
Repetitive surge reverse power derating vs Junction temperature



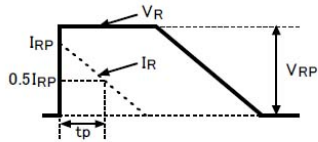
● $P_{RRSM} = I_{RP} \times V_{RP}$



Repetitive surge reverse power capability



● $P_{RRSM} = I_{RP} \times V_{RP}$



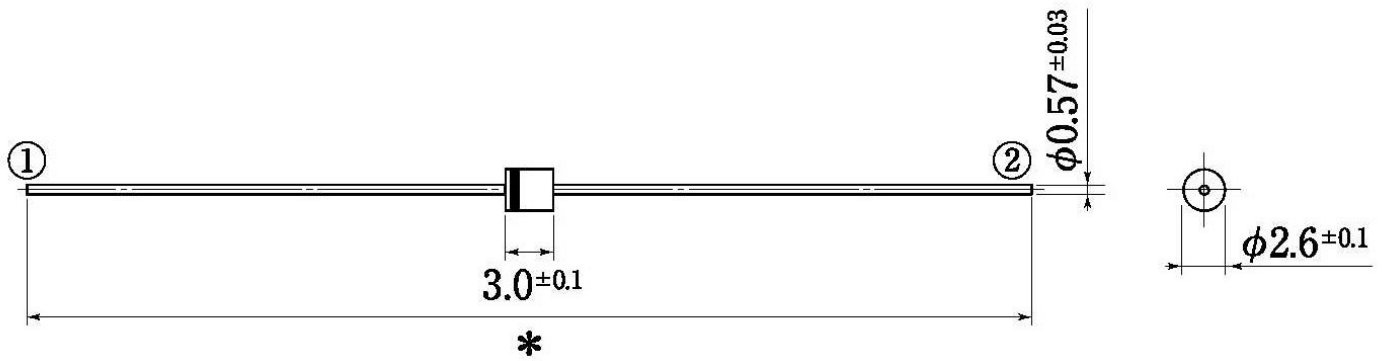
Outline Dimensions

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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