

D2S4M

Schottky Barrier Diodes 40V, 2A

Feature

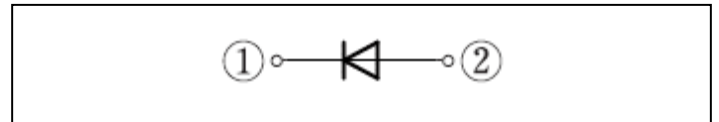
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX078



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-40 to 150	°C
Junction temperature	Tj		-40 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, Tl=122°C ※	2	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Ta=36°C ※	1.5	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C	60	A
Repetitive peak surge reverse power	P_{RRSM}	Pulse width 10μs, Tj=25°C	160	W

※ : See the original Specifications

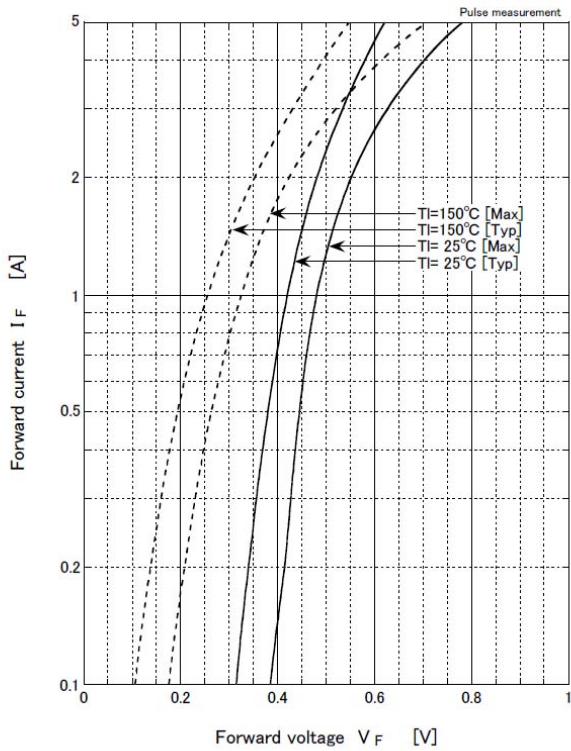
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=2A, Pulse measurement			0.55	V
Reverse current	I_R	VR=40V, Pulse measurement			2	mA
Total capacitance	C_t	f=1MHz, VR=10V		95		pF
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			17	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			105	°C/W

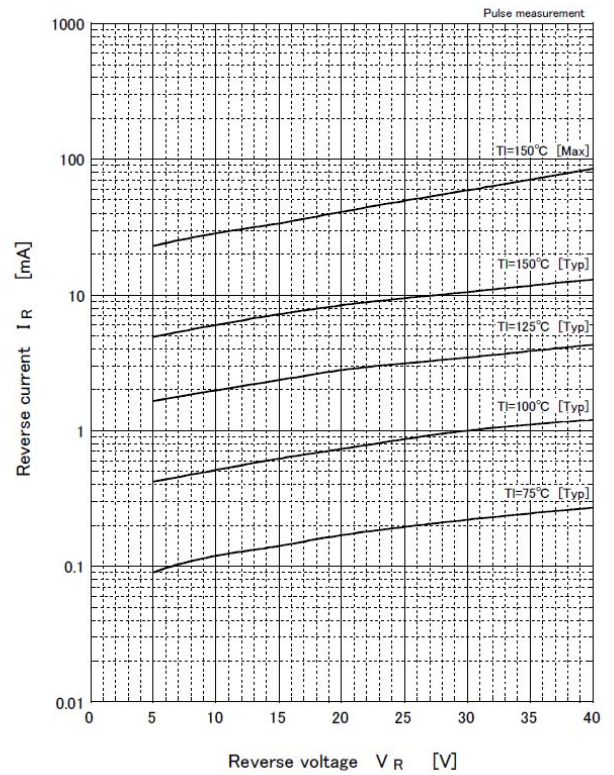
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

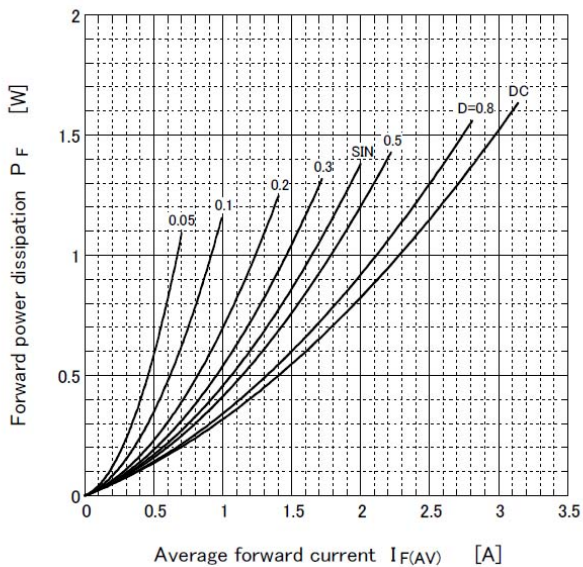
Forward voltage



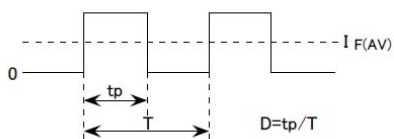
Reverse current



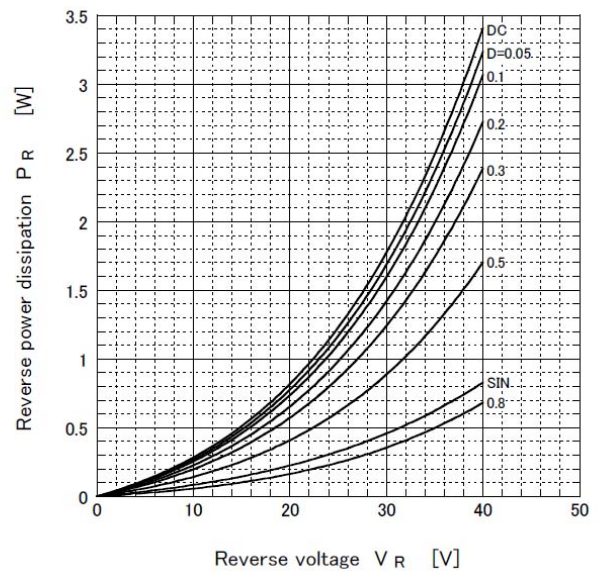
Forward power dissipation



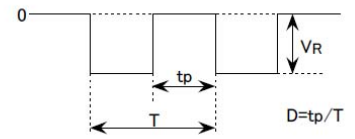
● $T_J = 150^\circ\text{C}$



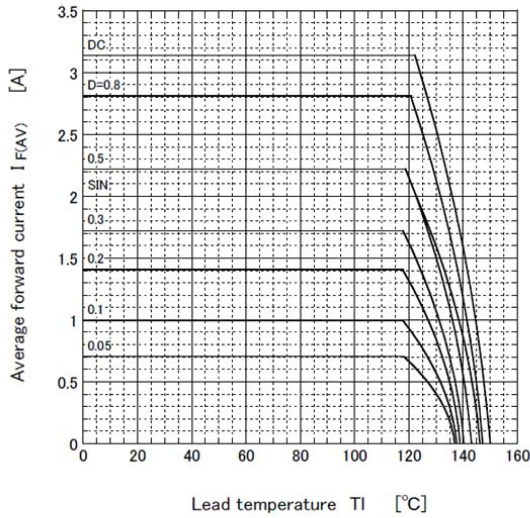
Reverse power dissipation



● $T_J = 150^\circ\text{C}$



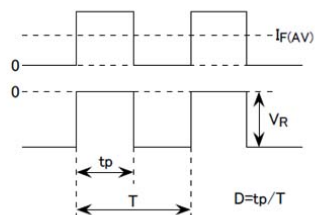
Derating curve



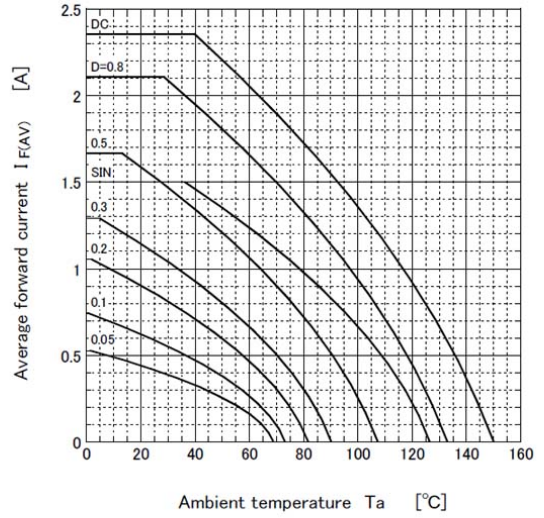
● $V_R = 20V$
R-load
Free in air

● Substrate detail

Type	Glass-epoxy
Size	90mm × 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	305.5mm ²



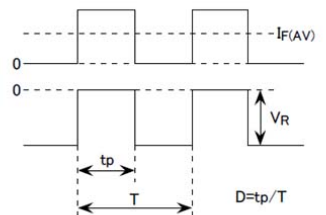
Derating curve



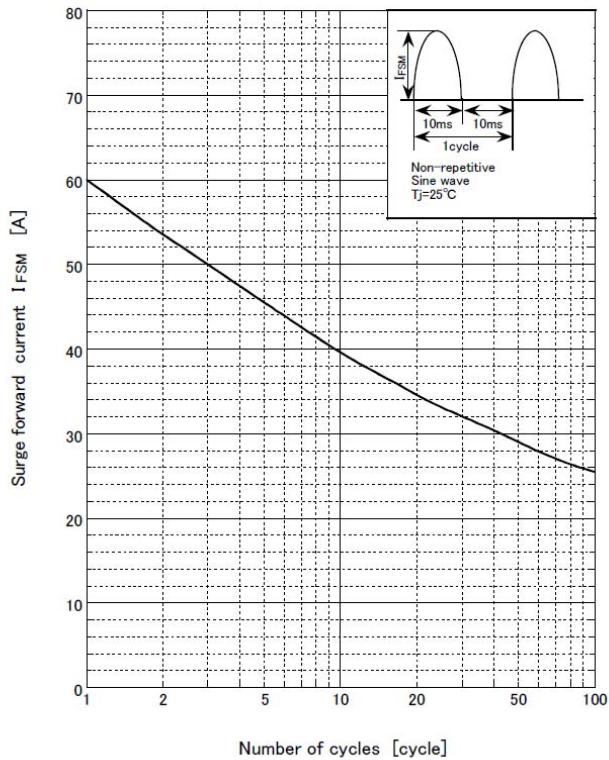
● $V_R = 20V$
R-load
Free in air

● Substrate detail

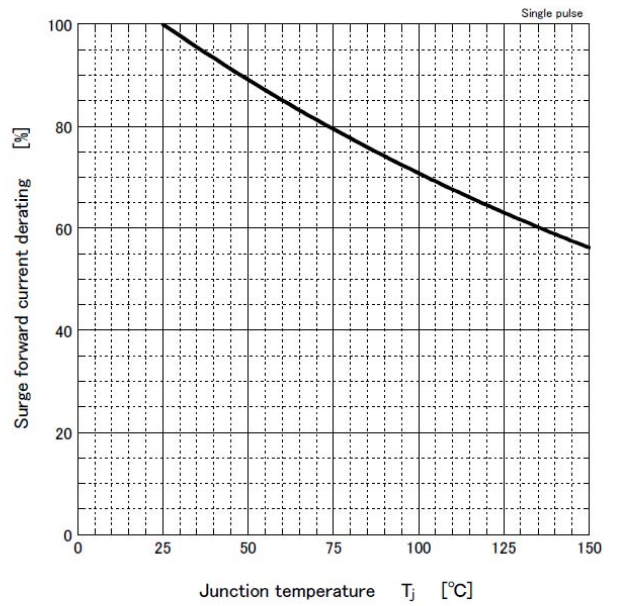
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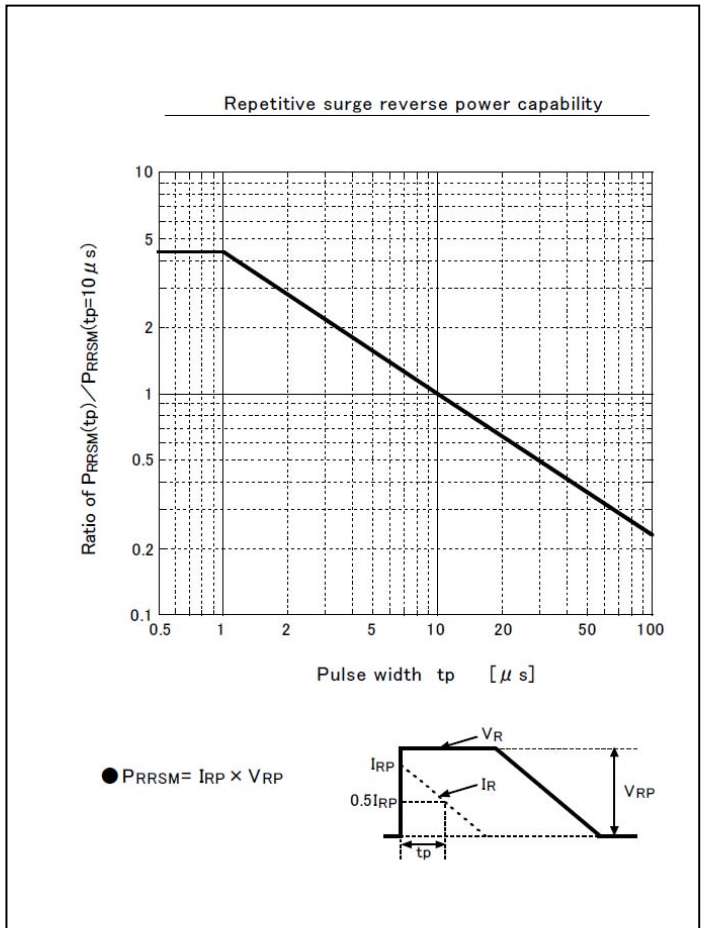
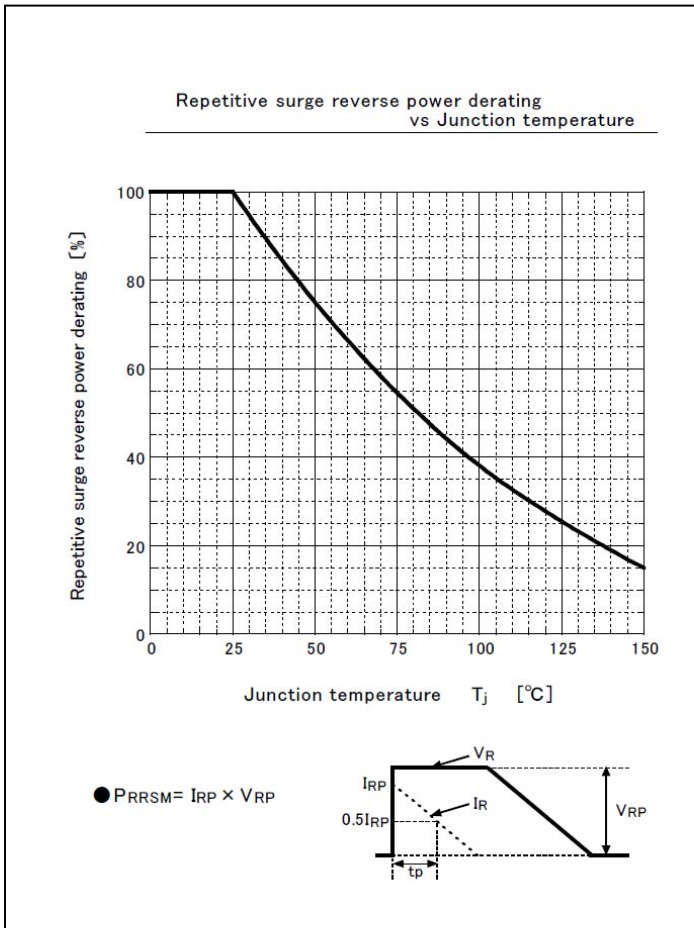
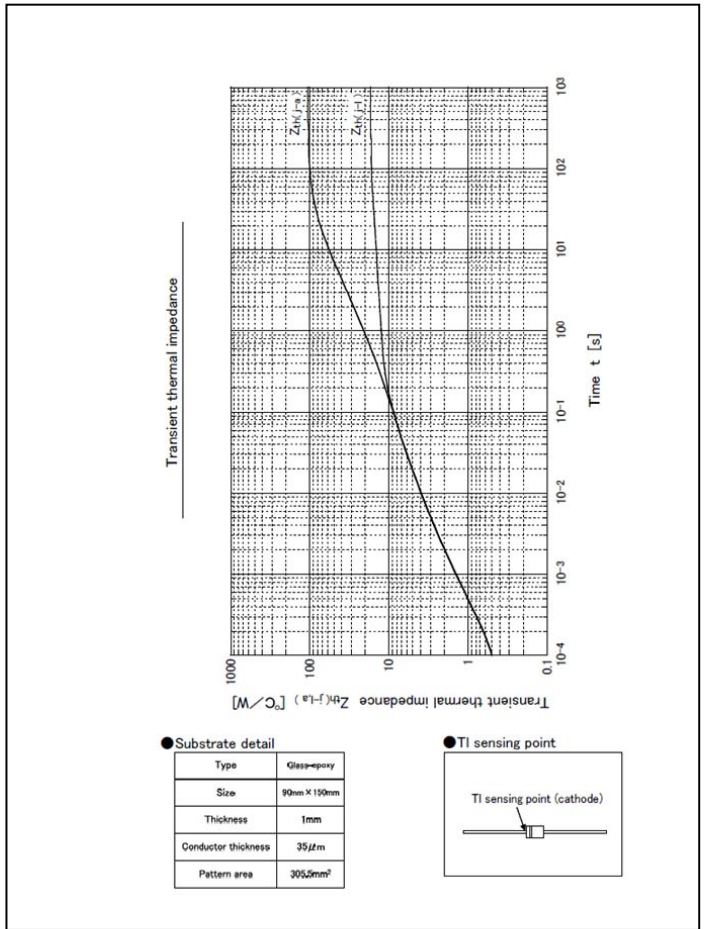
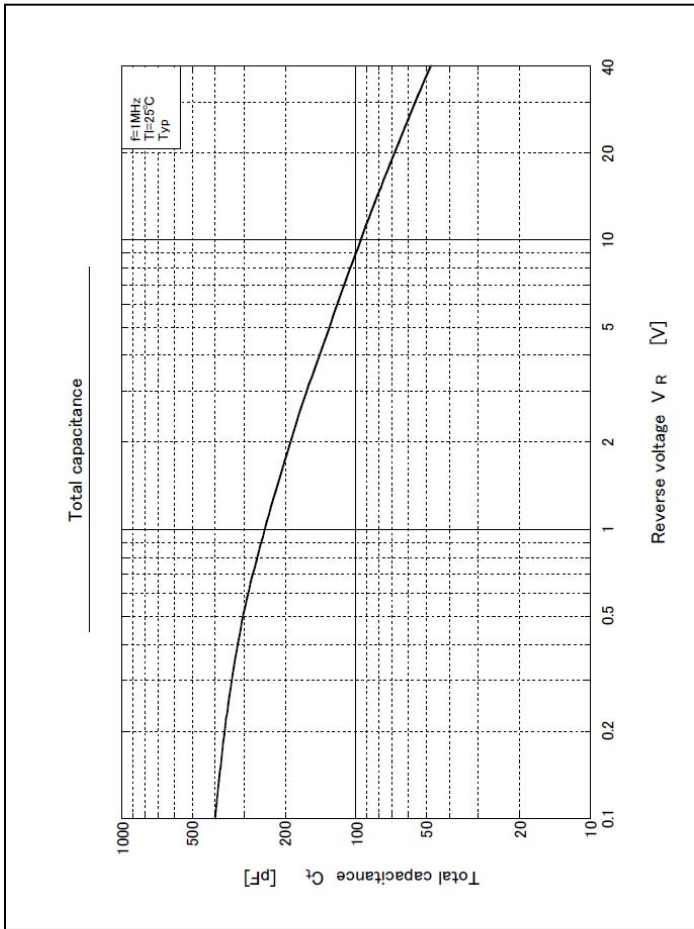


Surge forward current capability



Surge forward current derating vs Junction temperature





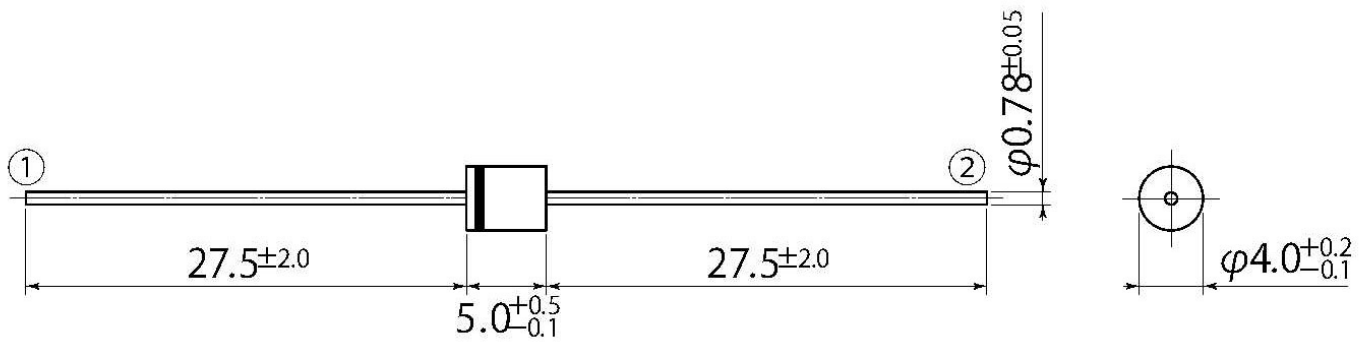
Outline Dimensions

unit:mm

scale: 2/1

A4

JEDEC Code	—
JEITA Code	—
House Name	AX078



Notes

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