

# D2S4M

## Schottky Barrier Diodes

40V, 2A

### Feature

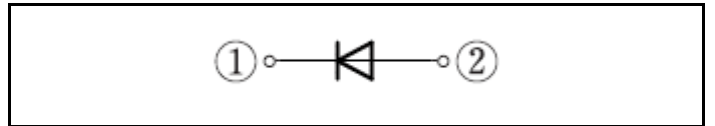
- High Recovery Speed
- Low  $V_F$
- Pb free terminal
- RoHS:Yes

### 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 <sub>RRM</sub>		40	V
Repetitive peak surge reverse voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Tl=122°C ※	2	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Ta=36°C ※	1.5	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, Tj=25°C	60	A
Repetitive peak surge reverse power	P <sub>RRSM</sub>	Pulse width 10μs, Tj=25°C	160	W

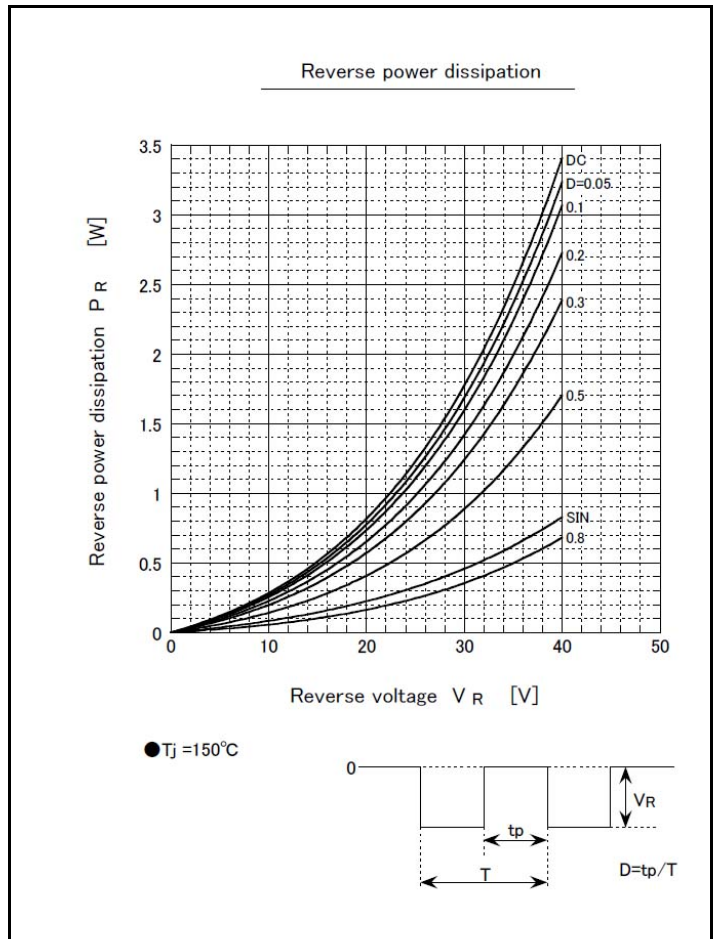
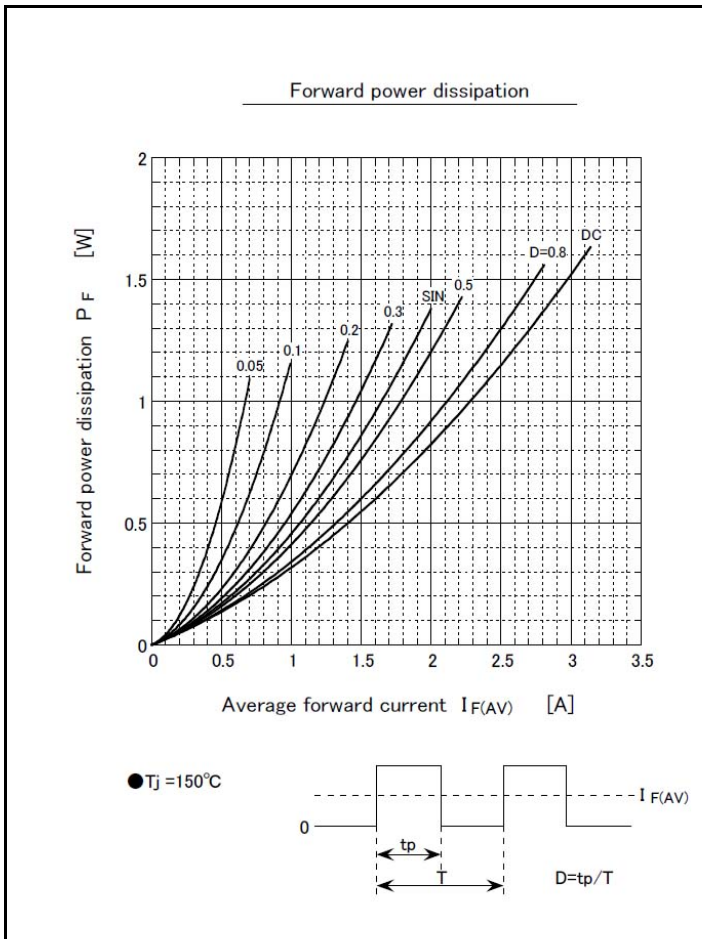
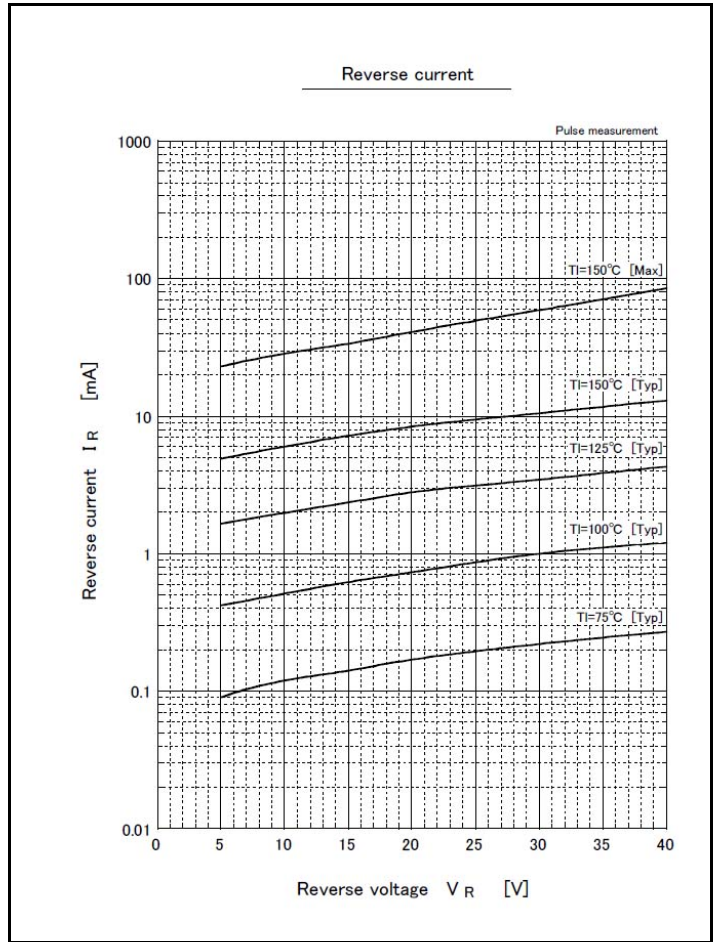
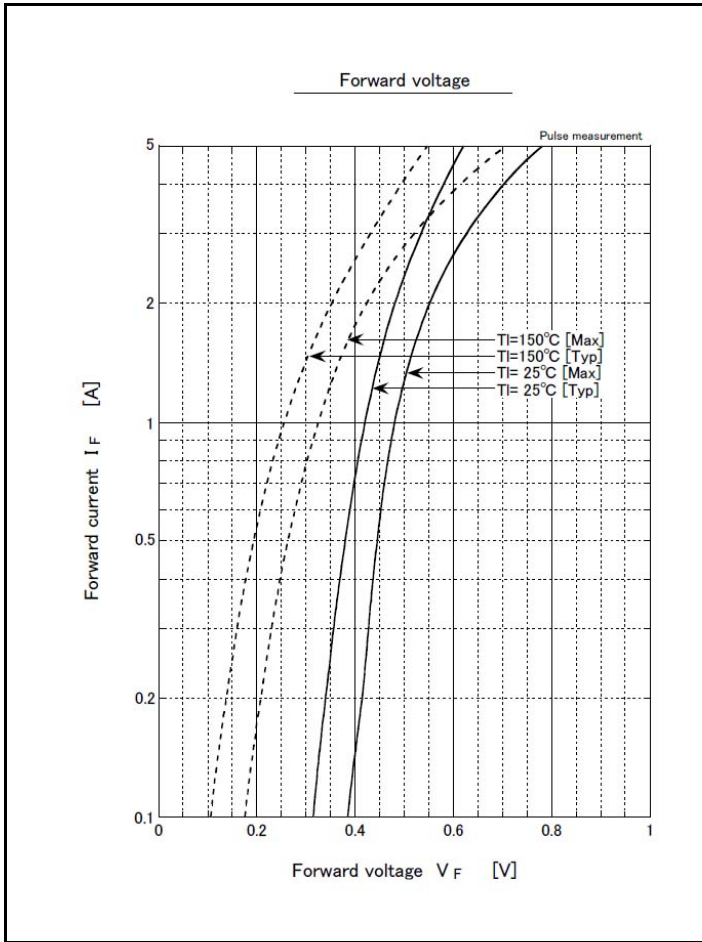
※ : See the original Specifications

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

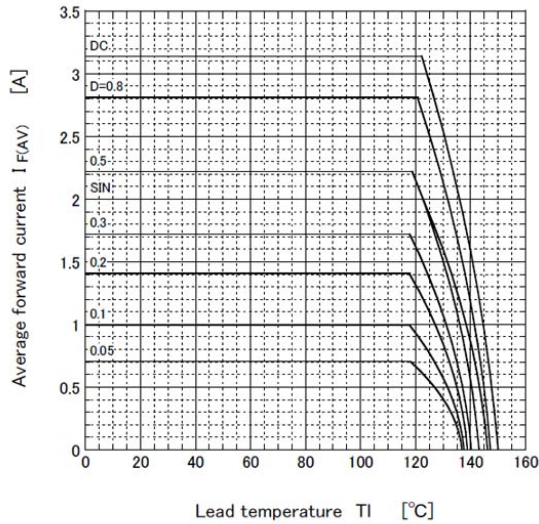
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	$I_F=2A$ , Pulse measurement			0.55	V
Reverse current	$I_R$	$V_R=40V$ , Pulse measurement			2	mA
Total capacitance	$C_t$	$f=1MHz$ , $V_R=10V$		95		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate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

\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS



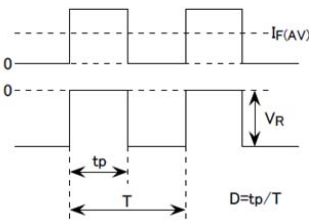
Derating curve



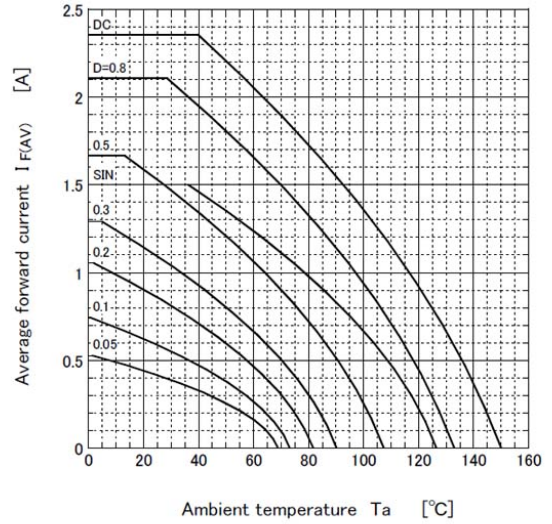
●  $V_R = 20V$   
R-load  
Free in air

● Substrate detail

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



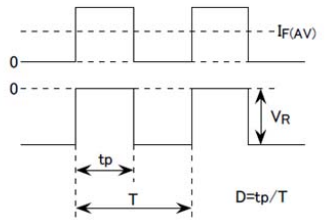
Derating curve



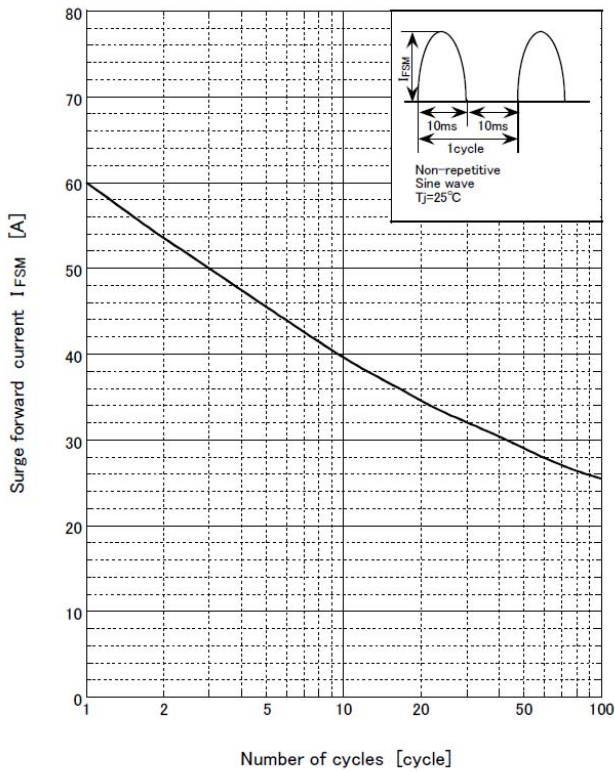
●  $V_R = 20V$   
R-load  
Free in air

● Substrate detail

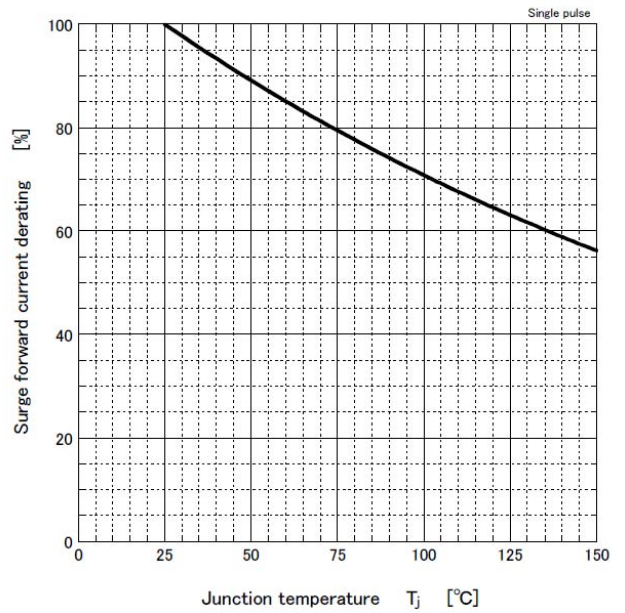
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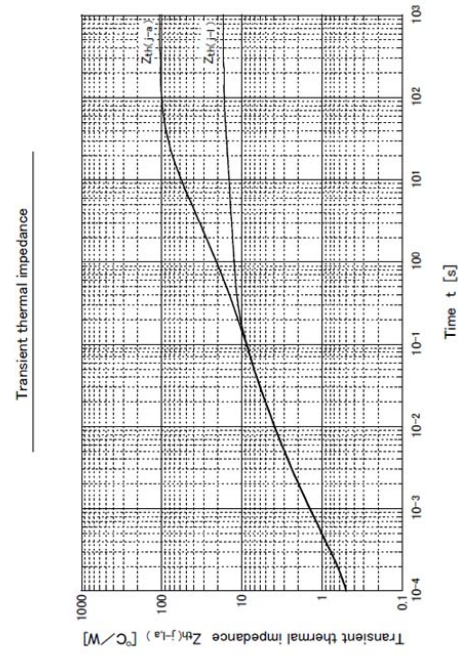
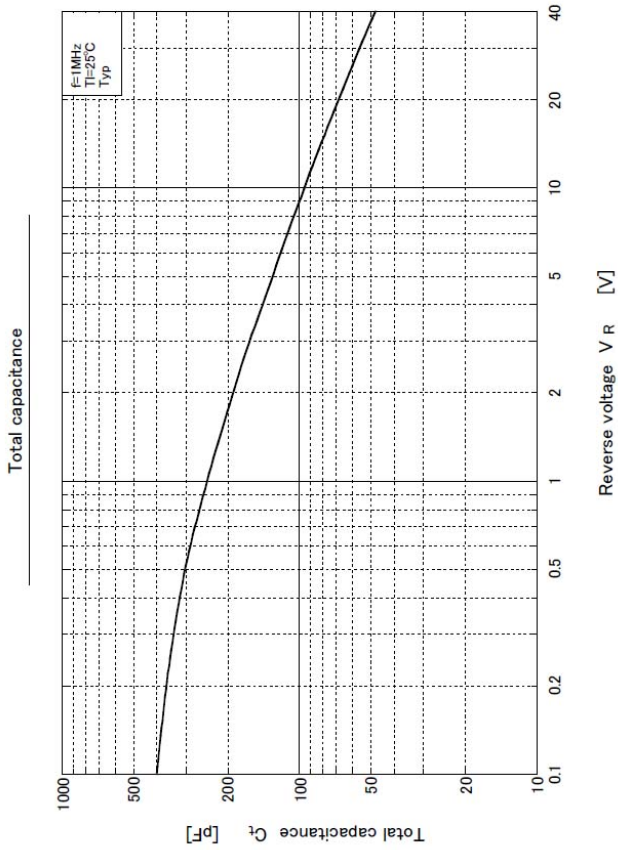


Surge forward current capability



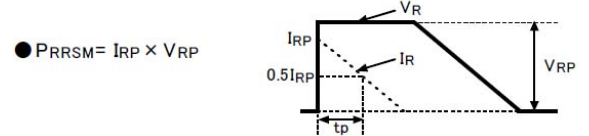
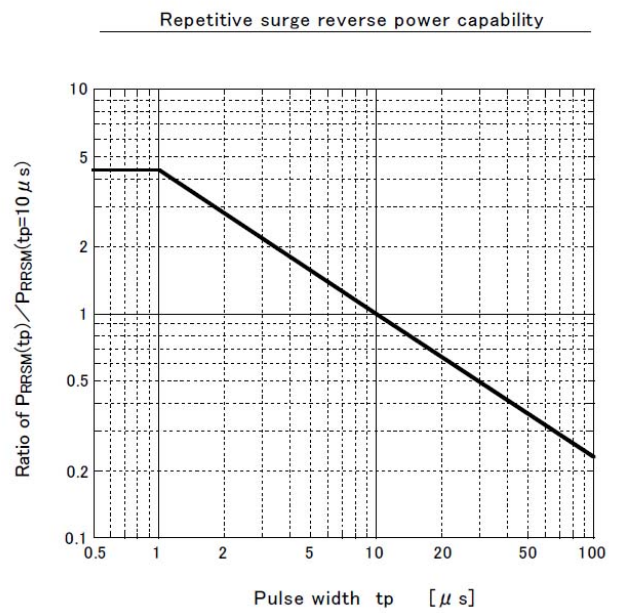
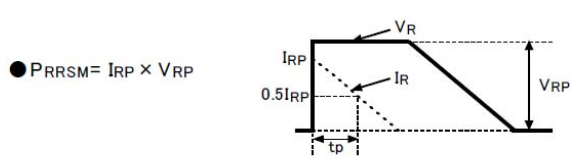
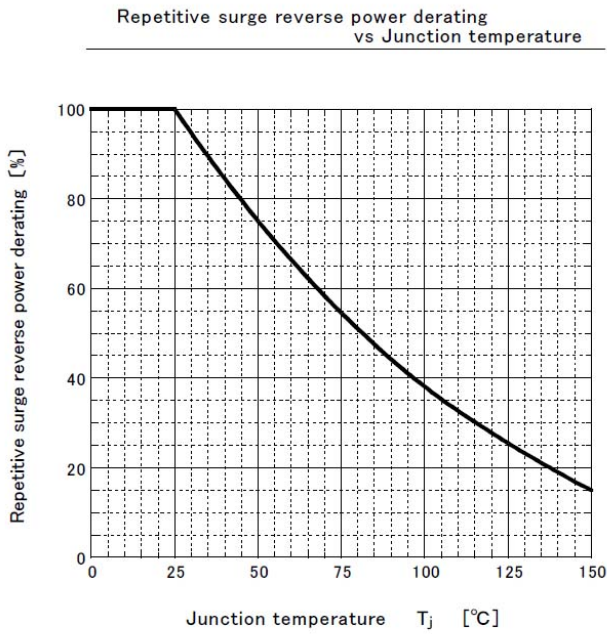
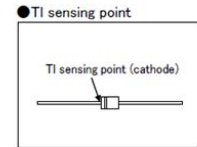
Surge forward current derating vs Junction temperature





● Substrate detail

Type	Glass-epoxy
Size	90mm X 150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	3055mm <sup>2</sup>



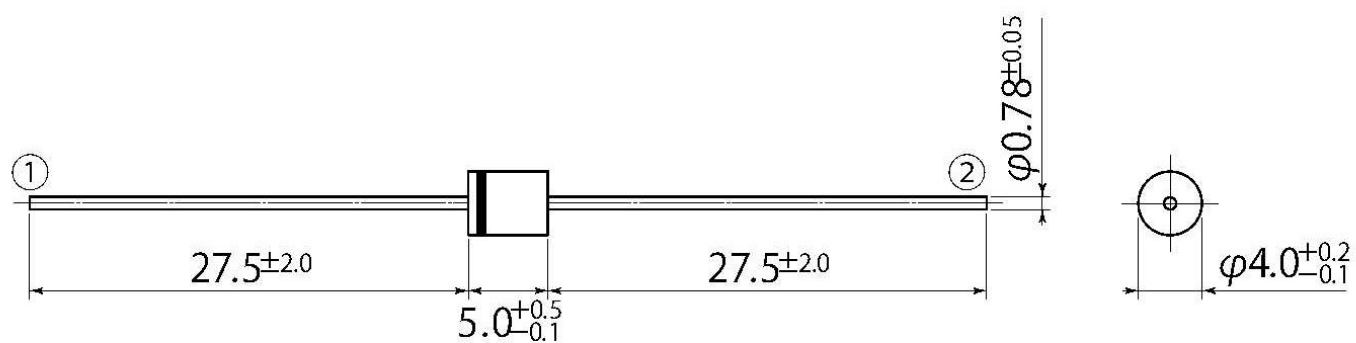
## Outline Dimensions

unit:mm

scale: 2/1

# A4

JEDEC Code	—
JEITA Code	—
House Name	AX078



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