

D2S4M

Schottky Barrier Diodes

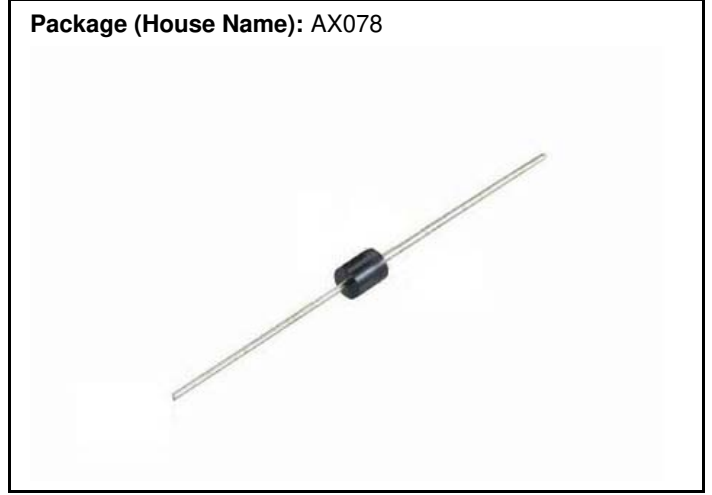
40V, 2A

Feature

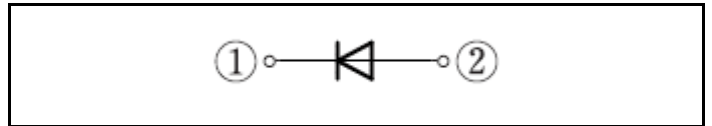
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

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, 1 cycle, Peak value, Tj=25°C | 60 | A |
| Repetitive peak surge reverse power | P_{RRSM} | Pulse width 10μs, Tj=25°C | 160 | W |

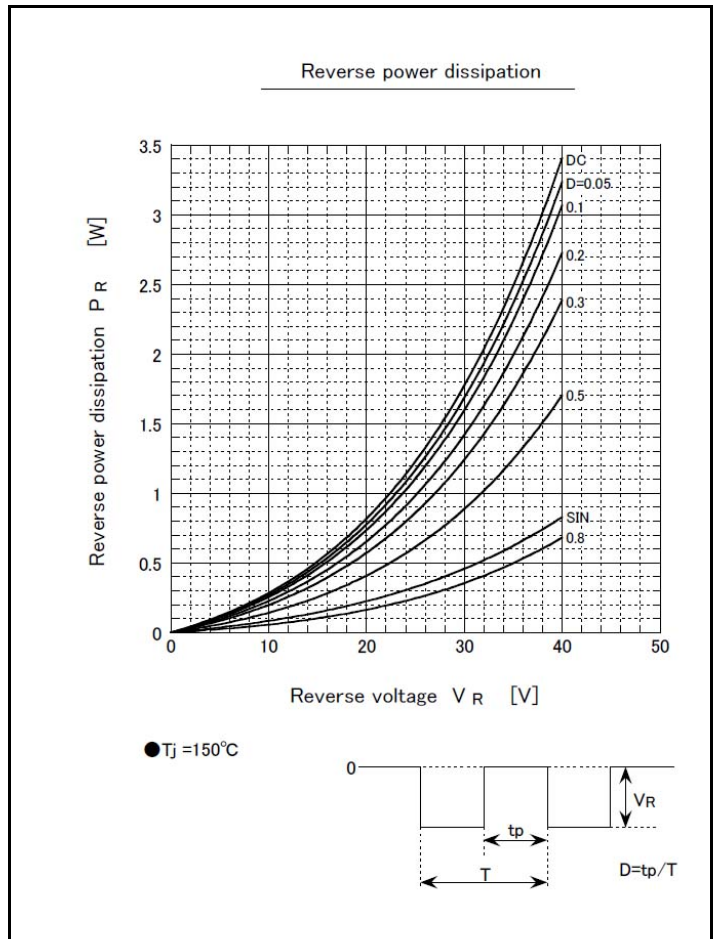
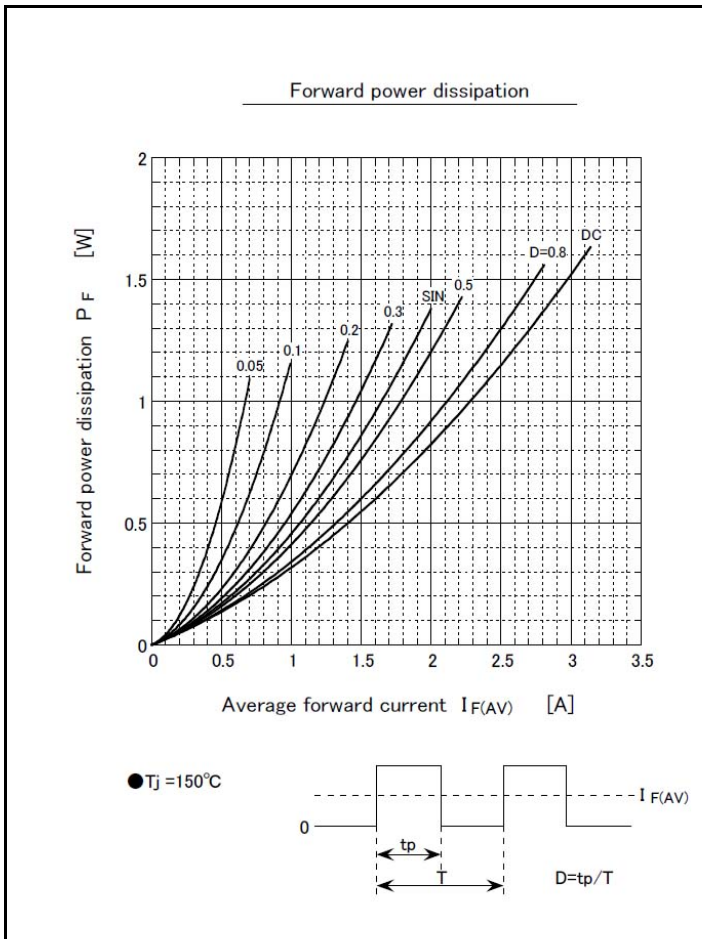
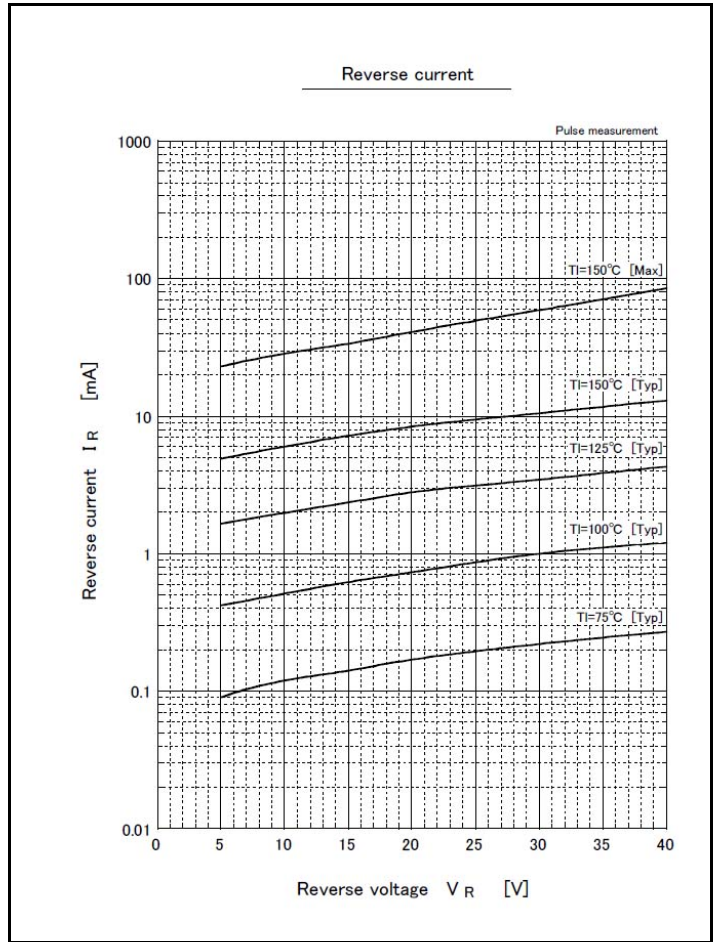
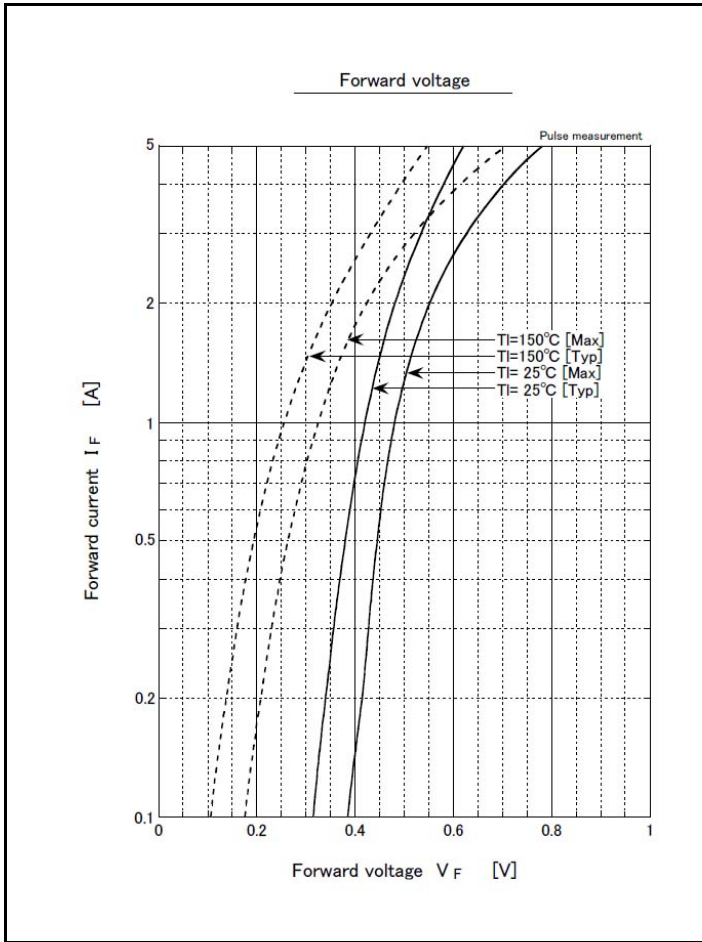
※ : See the original Specifications

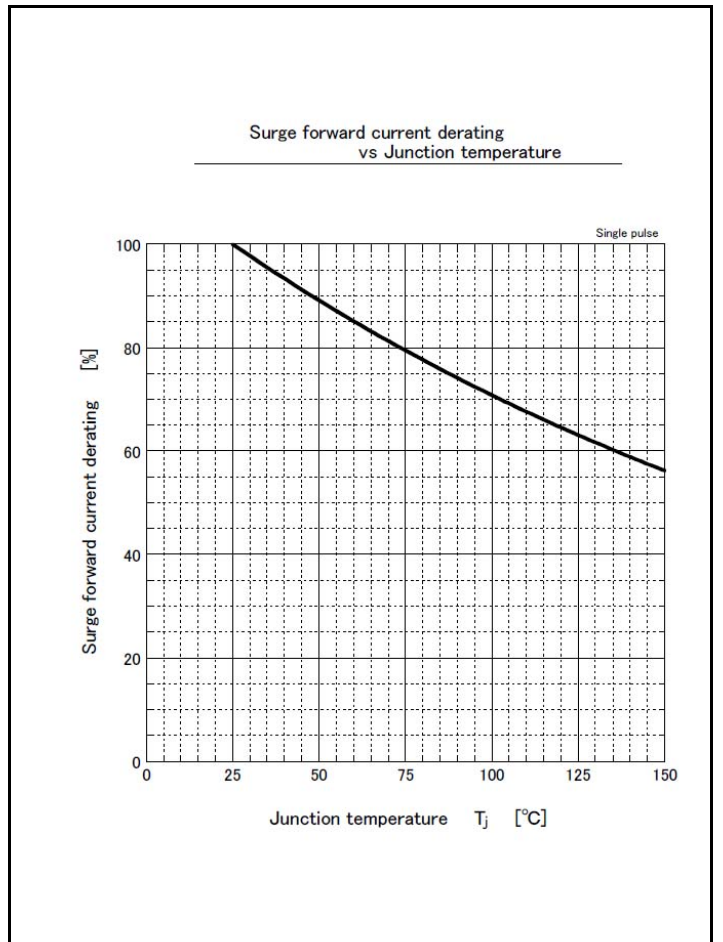
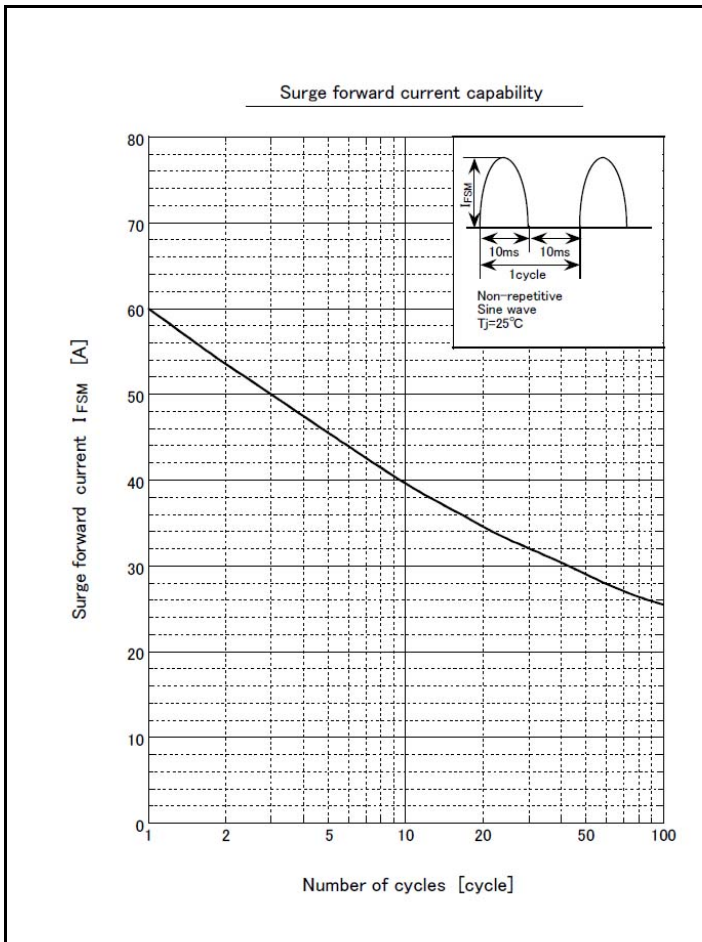
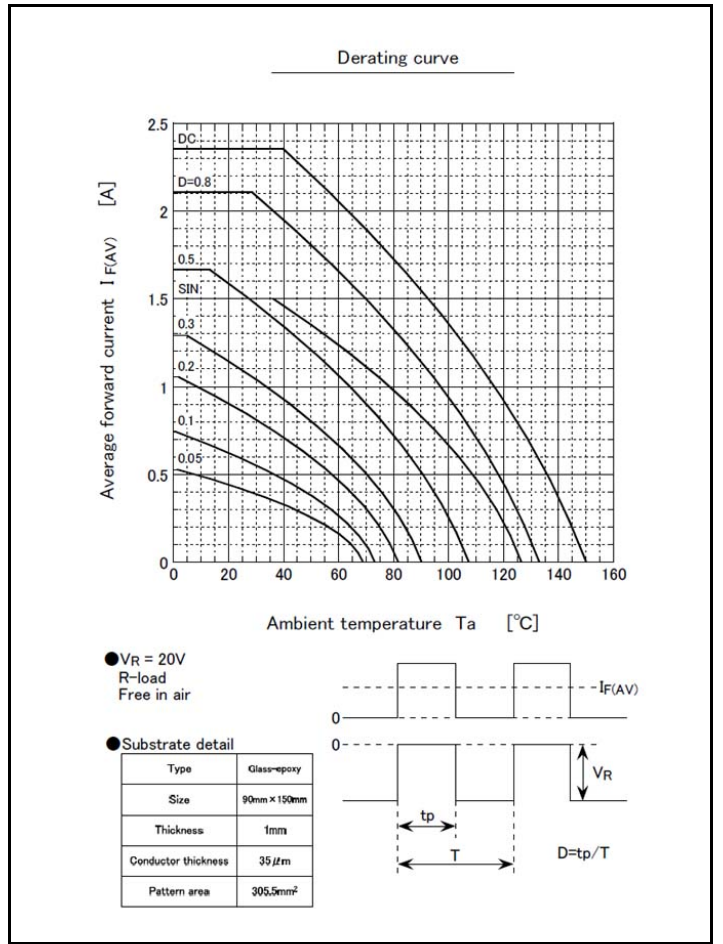
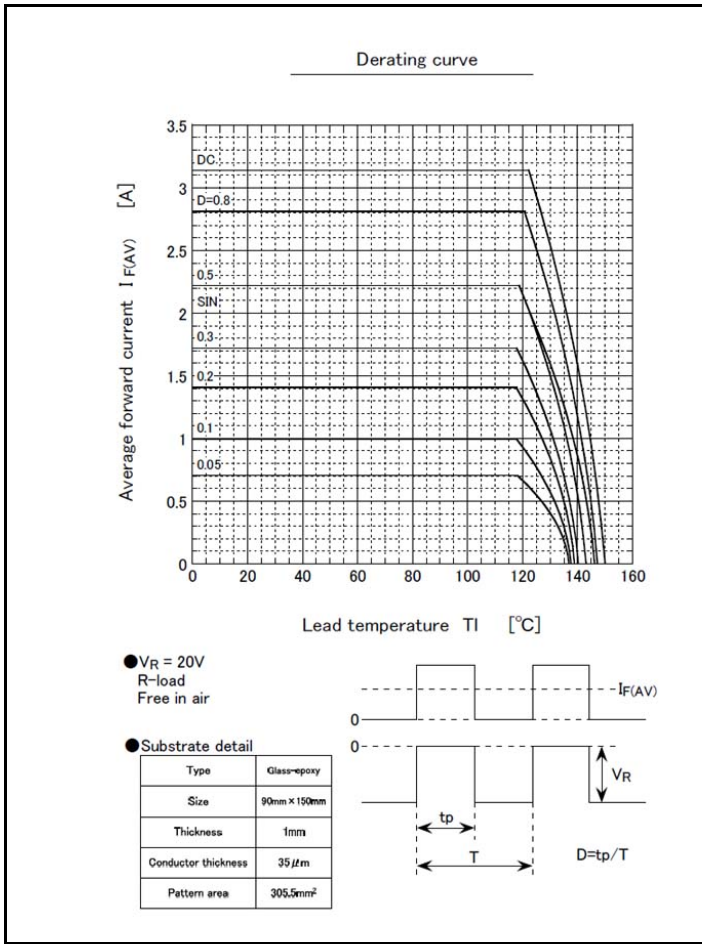
Electrical Characteristics (unless otherwise specified : Tl=25°C)

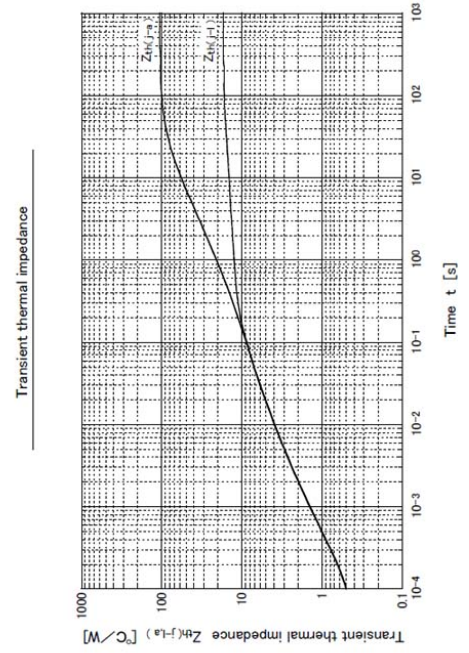
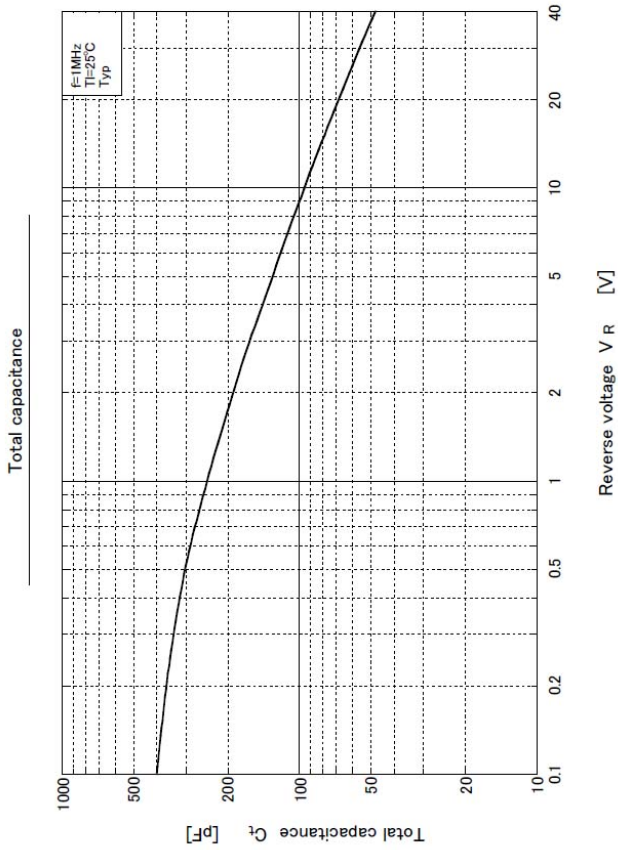
| Item | Symbol | Conditions | Ratings | | | Unit |
|--------------------|---------------|---|---------|-----|------|------|
| | | | MIN | TYP | MAX | |
| Forward voltage | V_F | $I_F=2A$, Pulse measurement | | | 0.55 | V |
| Reverse current | I_R | $V_R=40V$, Pulse measurement | | | 2 | mA |
| Total 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



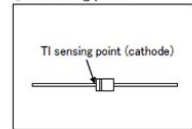




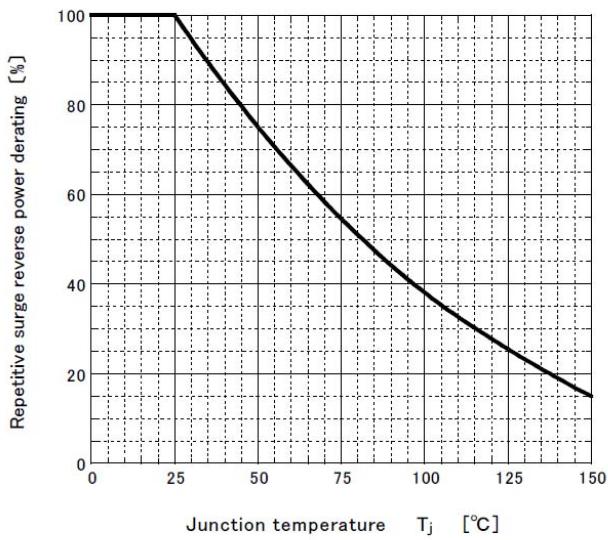
● Substrate detail

| | |
|---------------------|---------------------|
| Type | Glass-epoxy |
| Size | 90mm X 150mm |
| Thickness | 1mm |
| Conductor thickness | 35μm |
| Pattern area | 3052mm ² |

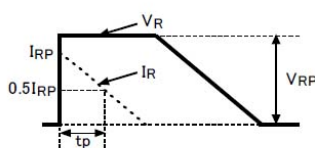
● TI sensing point



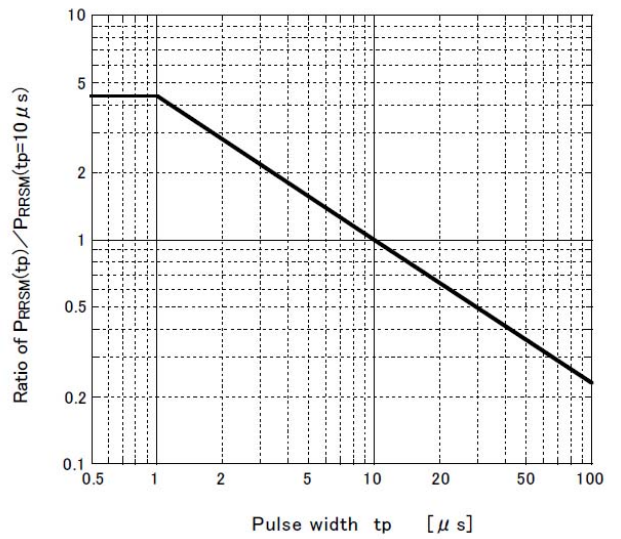
Repetitive surge reverse power derating vs Junction temperature



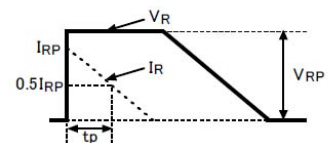
● $PRRSM = I_{RP} \times V_{RP}$



Repetitive surge reverse power capability



● $PRRSM = I_{RP} \times V_{RP}$



Outline Dimensions

unit:mm

scale: 2/1

A4

| | |
|------------|-------|
| JEDEC Code | — |
| JEITA Code | — |
| House Name | AX078 |

