

D3S6M

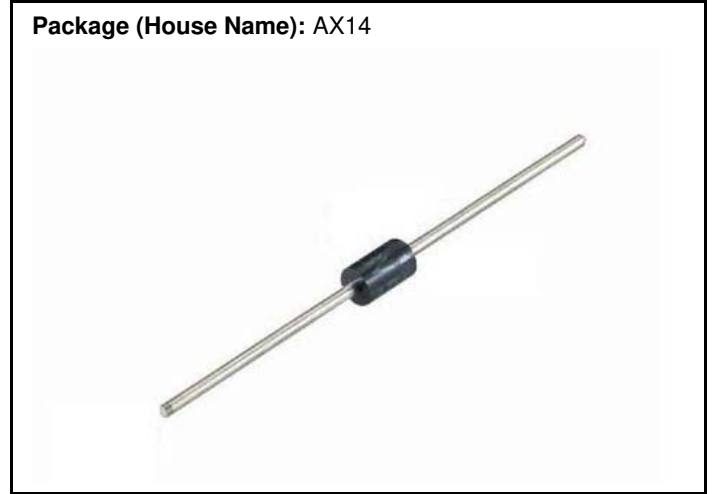
Schottky Barrier Diodes 60V, 3A

Feature

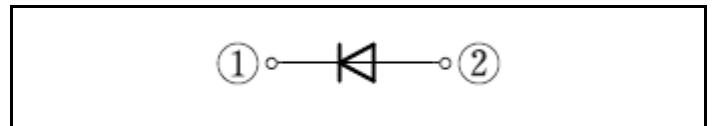
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX14



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T_{stg}		-40 to 150	°C
Junction temperature	T_j		-40 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		60	V
Repetitive peak surge reverse voltage	V_{RRSM}	Pulse width 0.5ms, duty=1/40	65	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=133°C *	3	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=57°C	1.8	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, Tj=125°C	80	A
Repetitive peak surge reverse power	P_{RRSM}	Pulse width 10μs, Tj=25°C	330	W

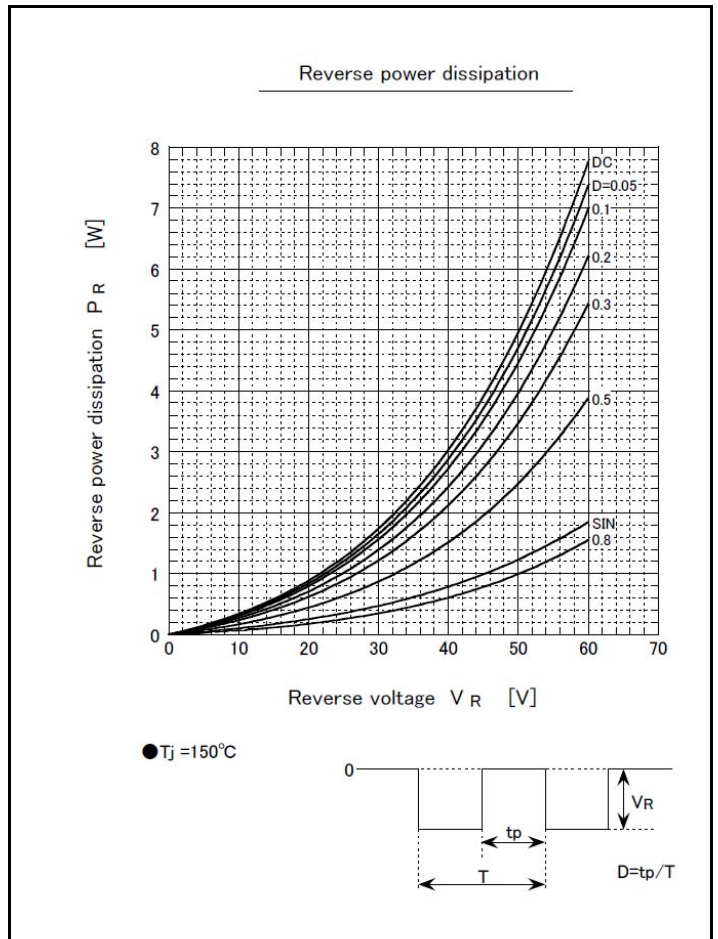
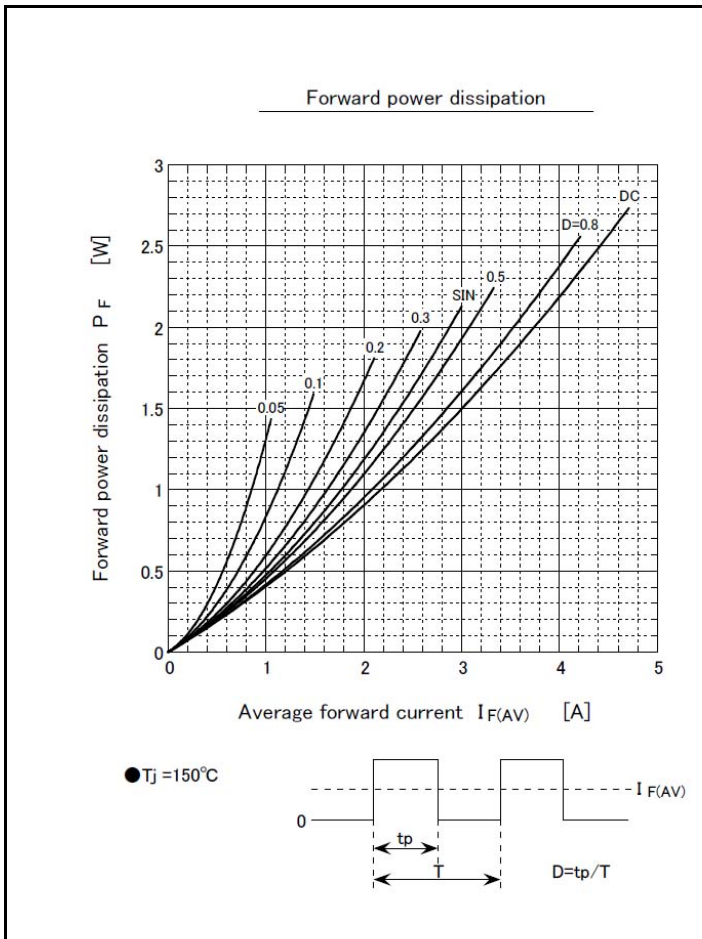
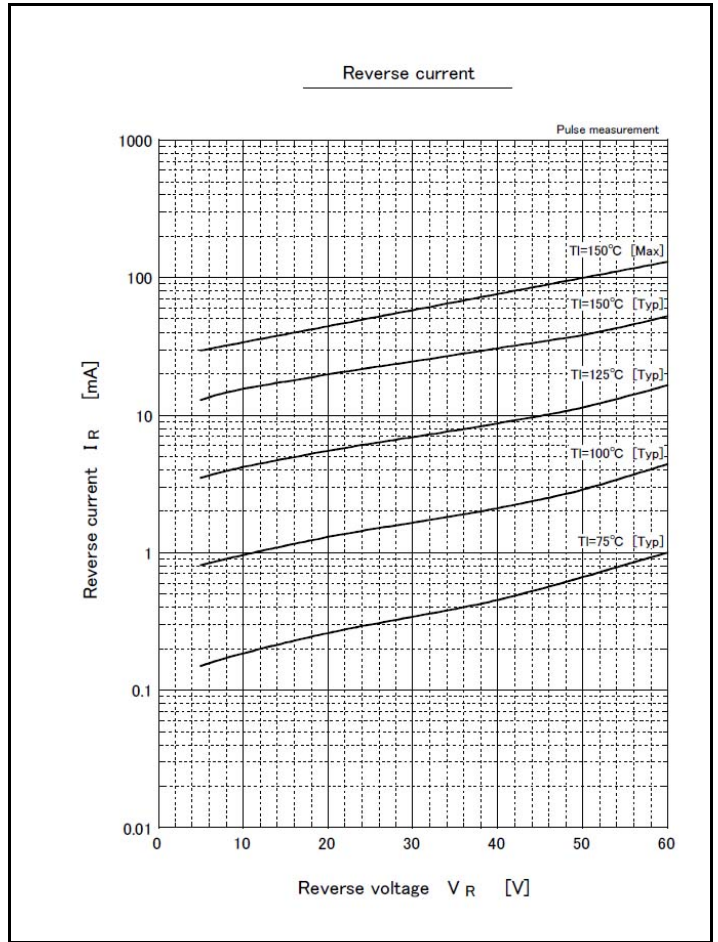
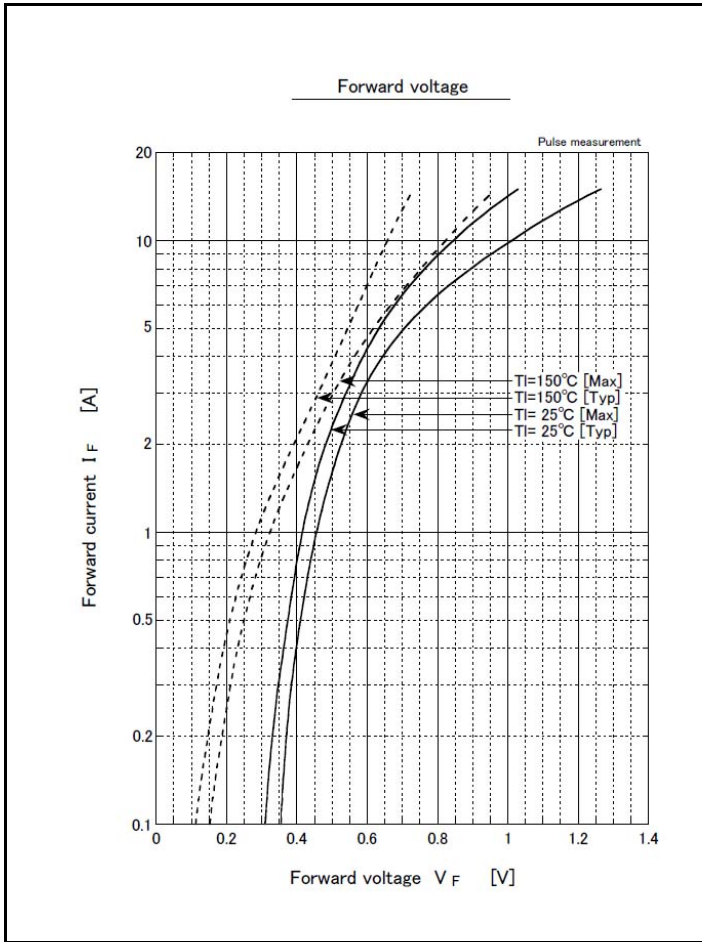
* :See the original Specifications

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

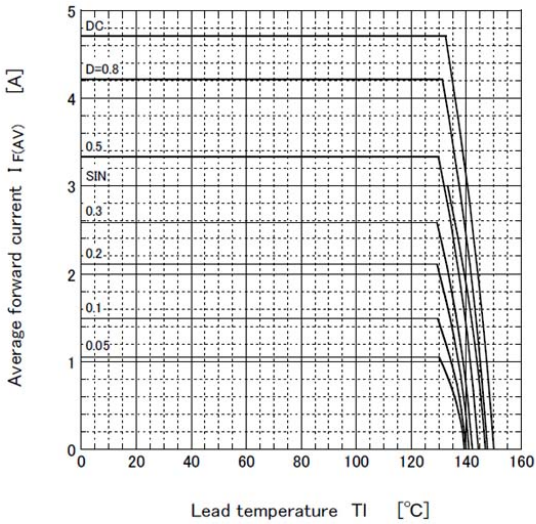
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=3A$, Pulse measurement			0.58	V
Reverse current	I_R	$V_R=60V$, Pulse measurement			2.5	mA
Total capacitance	C_t	$f=1MHz$, $V_R=10V$		130		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate *			6.5	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate *			62	°C/W

* :See the original Specifications

CHARACTERISTIC DIAGRAMS



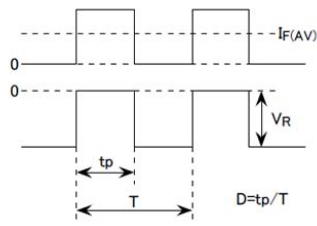
Derating curve



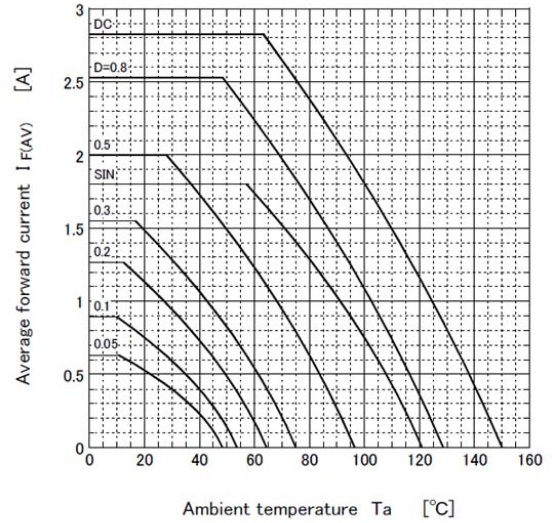
- $V_R = 30V$
R-load
Free in air

- Substrate detail

Type	Glass-epoxy
Size	90mm × 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	515.6mm ²



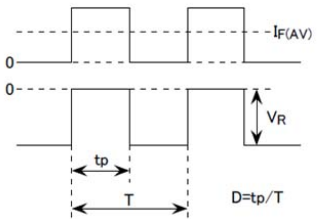
Derating curve



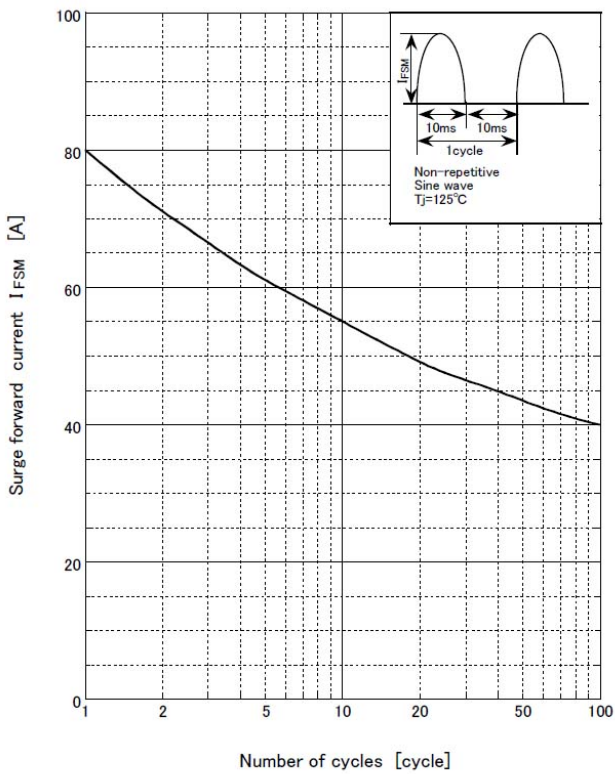
- $V_R = 30V$
R-load
Free in air

- Substrate detail

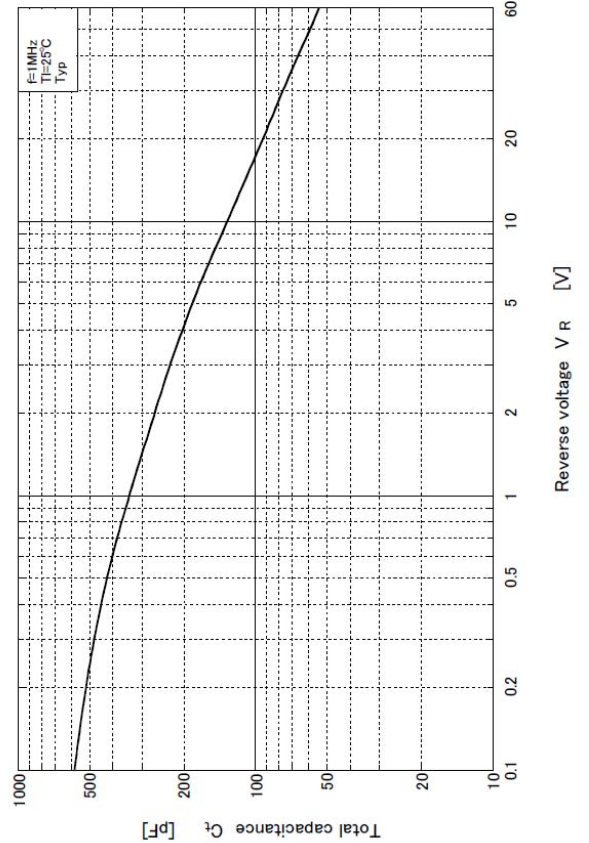
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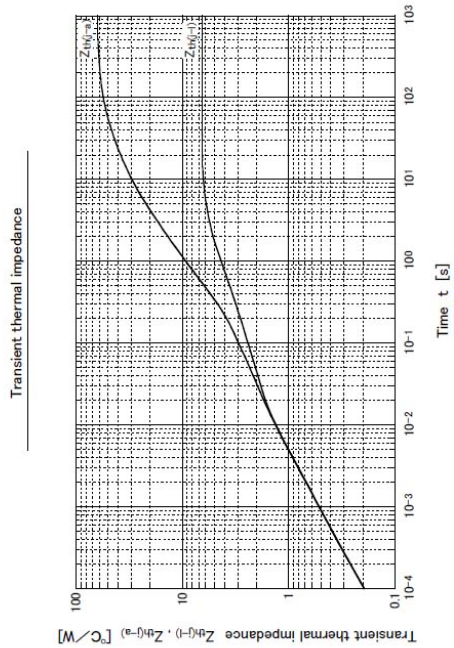


Surge forward current capability



Total capacitance

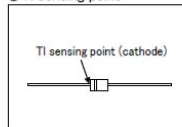




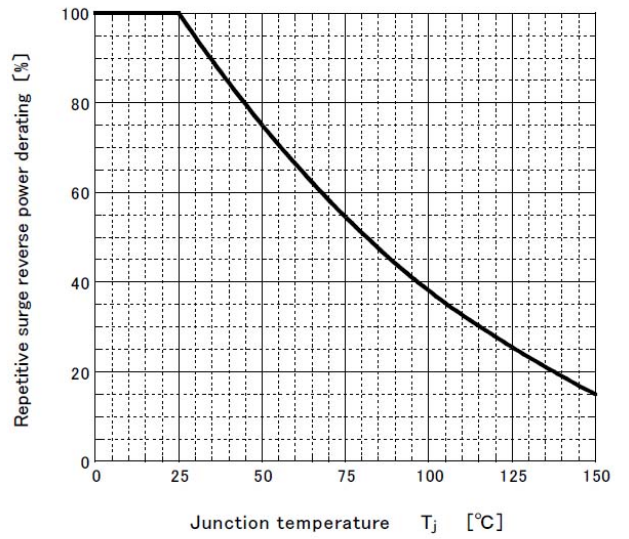
● Substrate detail

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Pattern area	515.6mm ²

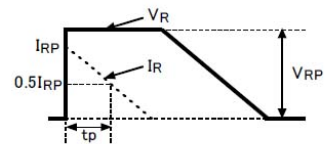
● TI sensing point



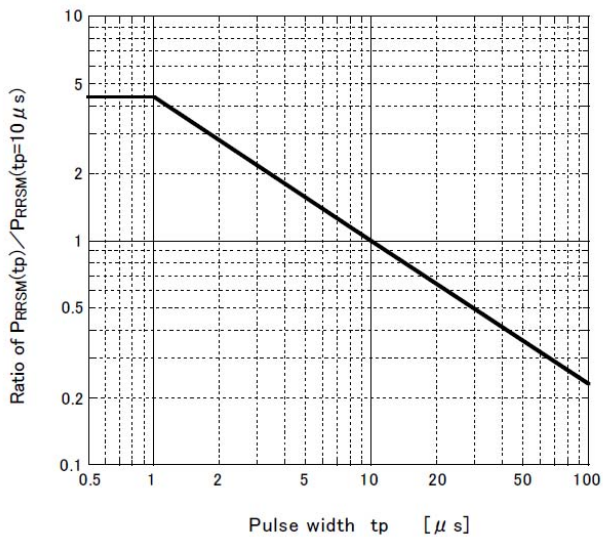
Repetitive surge reverse power derating vs Junction temperature



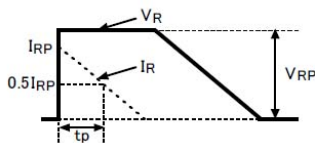
● $PRRSM = I_{RP} \times V_{RP}$



Repetitive surge reverse power capability



● $PRRSM = I_{RP} \times V_{RP}$



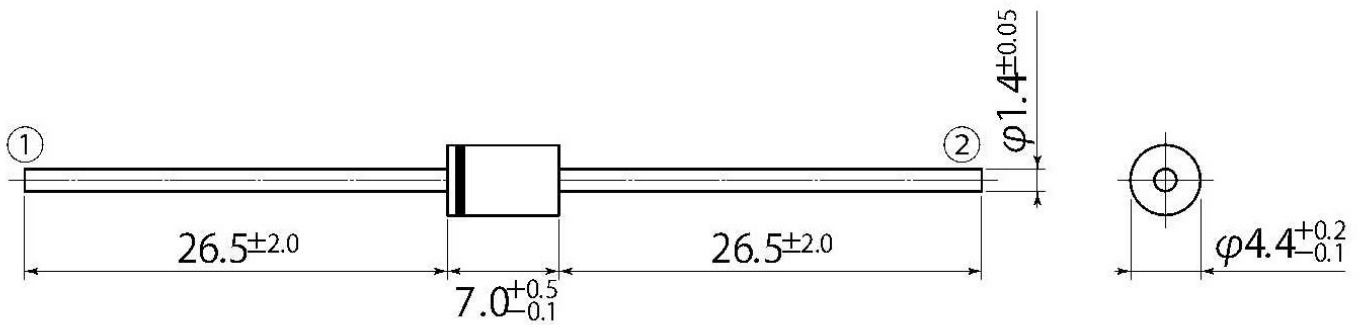
Outline Dimensions

unit:mm

scale: 2/1

A7

JEDEC Code	—
JEITA Code	—
House Name	AX14



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