ShinDengen

S3L40U

Fast Recovery Diodes
400V, 3A

Feature

- High Recovery Speed
- 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 temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		400	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=126°C ※	3	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.9	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	150	A

※ ：See the original Specifications

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

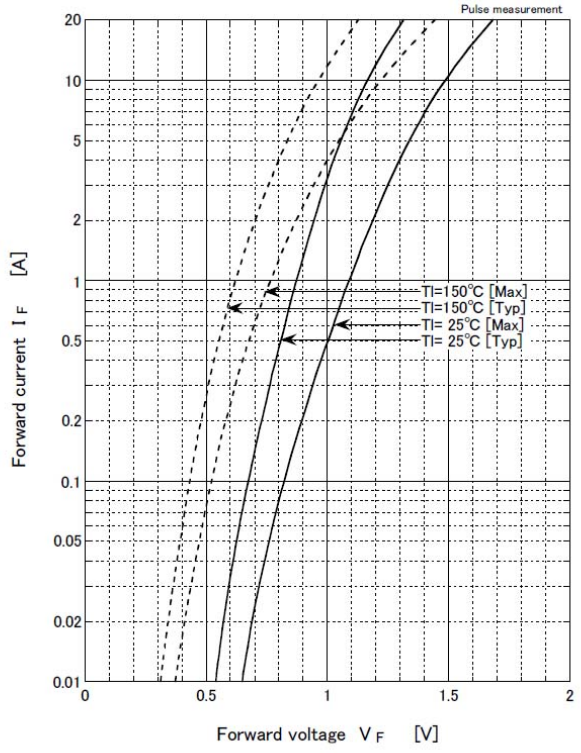
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3A, Pulse measurement			1.25	V
Reverse current	I_R	VR=400V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			35	ns
Total capacitance	Ct	f=1MHz, VR=10V		34		pF
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			6.5	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient On glass-epoxy substrate ※			60	°C/W

※ ：See the original Specifications

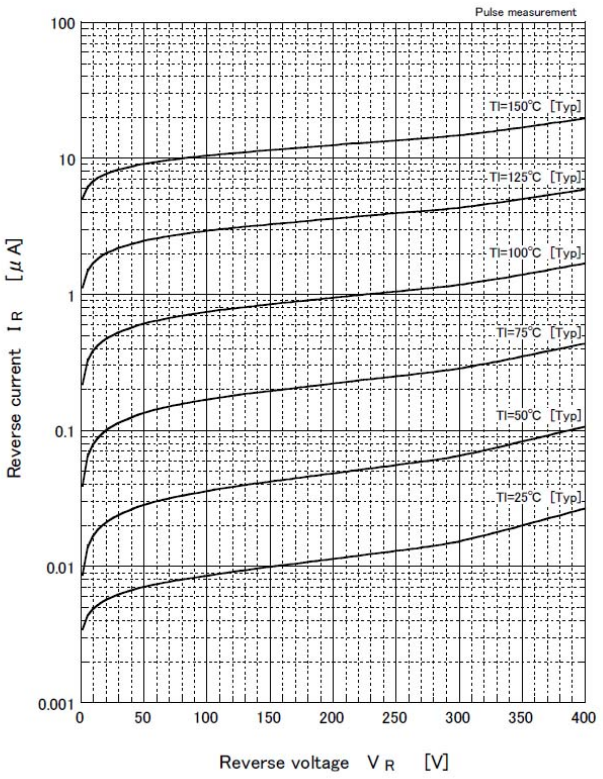
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CHARACTERISTIC DIAGRAMS

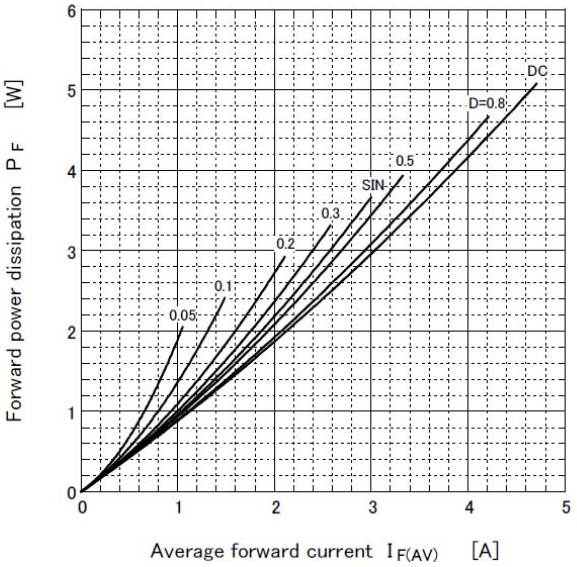
Forward voltage



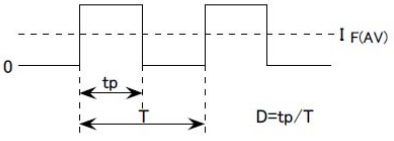
Reverse current



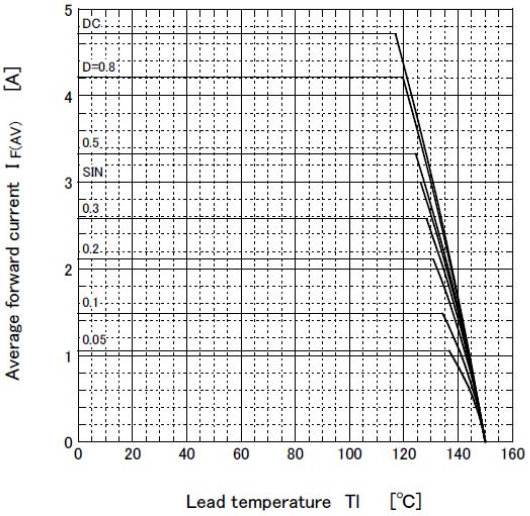
Forward power dissipation



●Tj =150℃



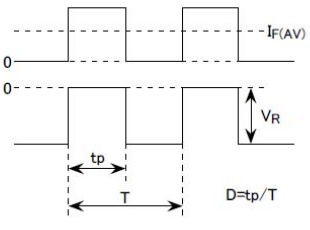
Derating curve



●V_R = 400V
R-load
Free in air

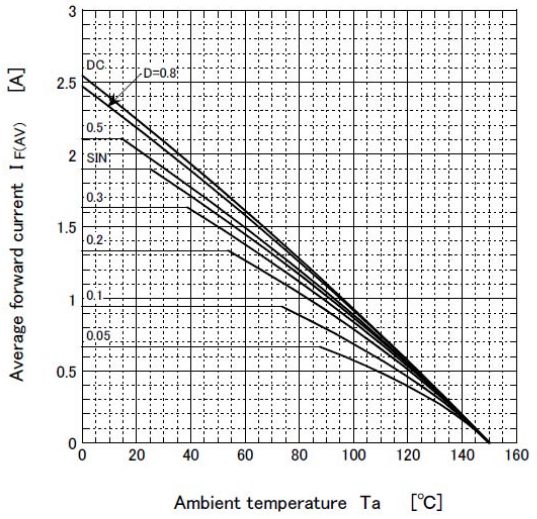
●Substrate detail

Type	Glass-epoxy
Size	90mm×150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	515.6mm²



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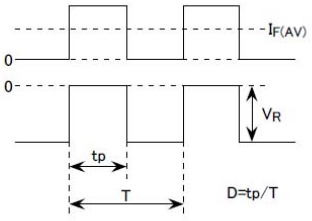
Derating curve



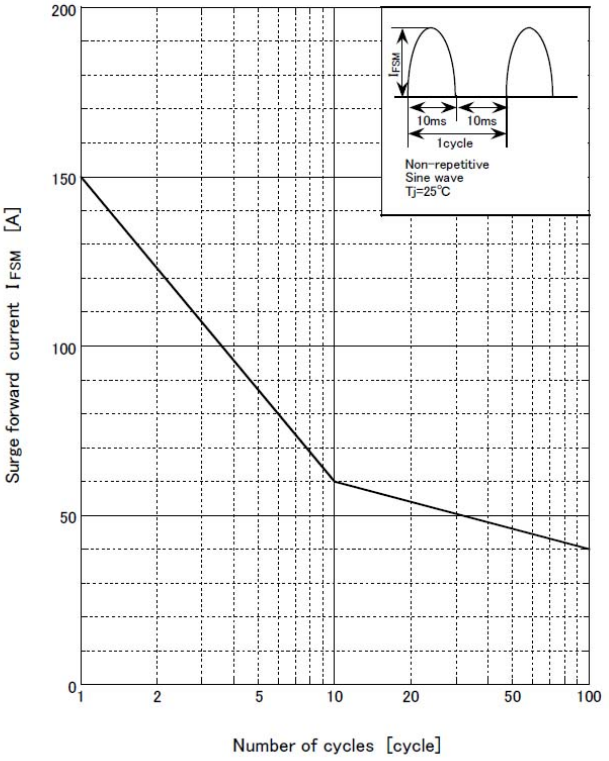
●V_R = 400V
R-load
Free in air

●Substrate detail

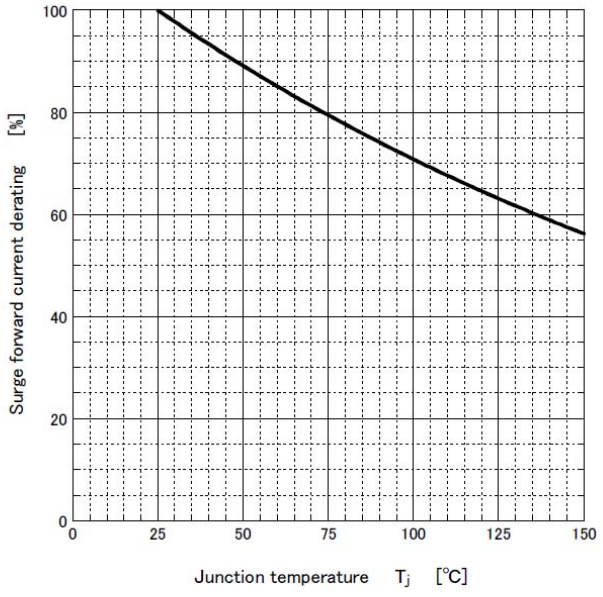
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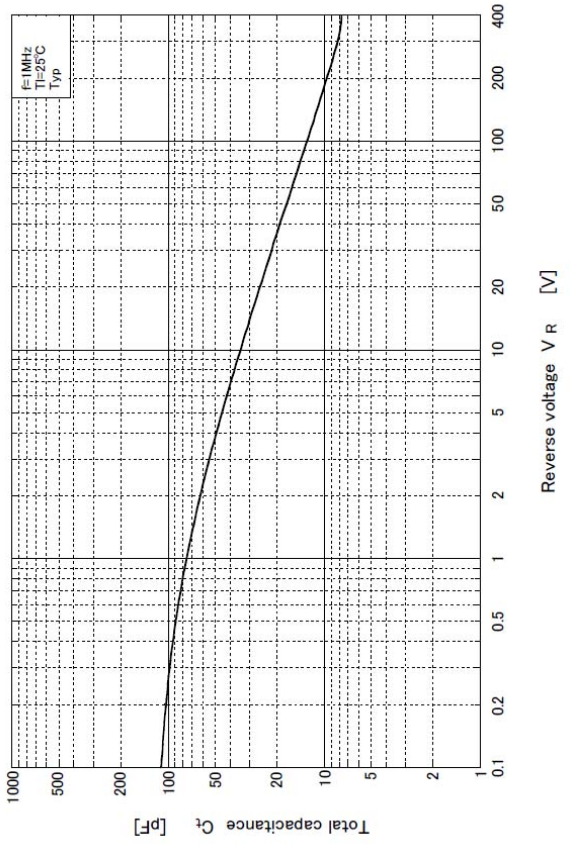
Surge forward current capability



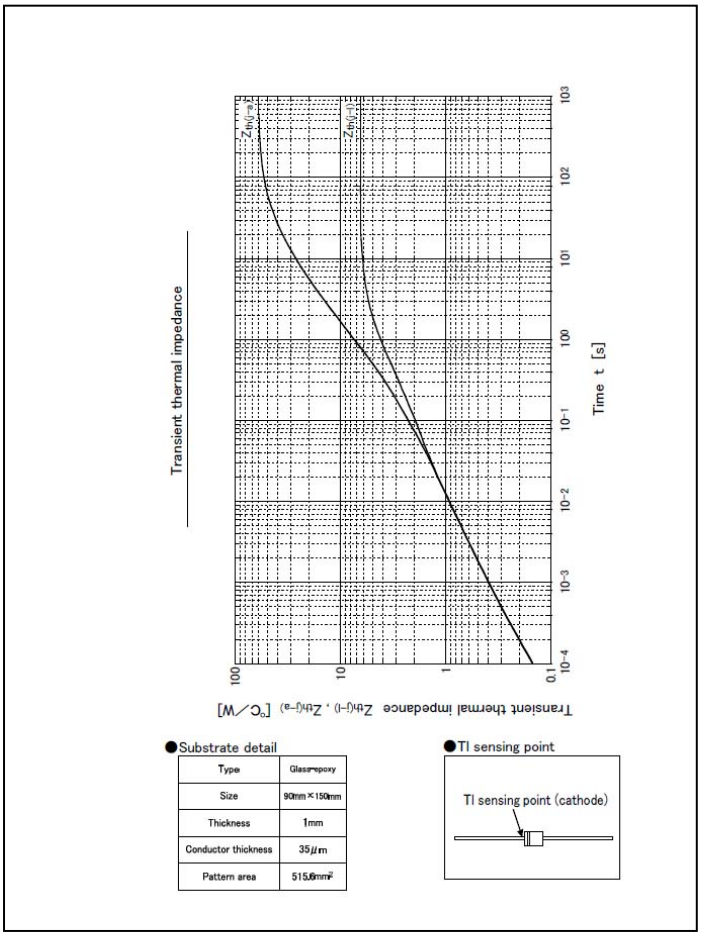
Surge forward current derating vs Junction temperature



Total capacitance



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●Substrate detail

Type	Glass-epoxy
Size	90mm×150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	515.6mm²

●TI sensing point

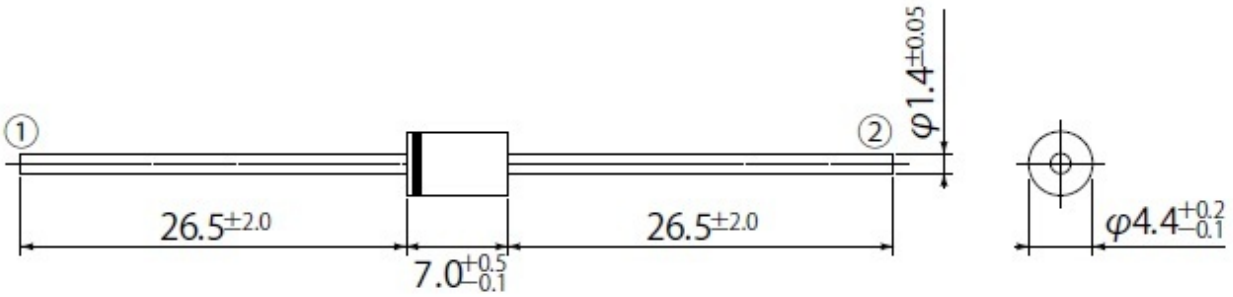
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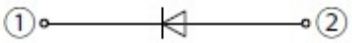
Outline Dimensions

unit:mm

A7

JEDEC Code	–
JEITA Code	–
House Name	AX14





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