

S3L40U

Fast Recovery Diodes

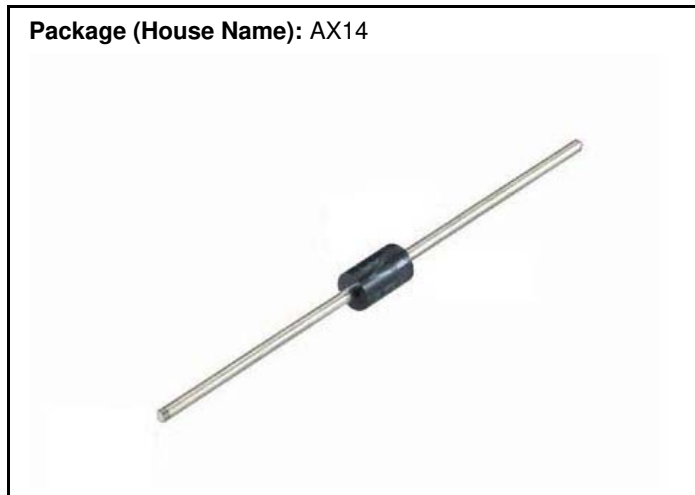
400V, 3A

Feature

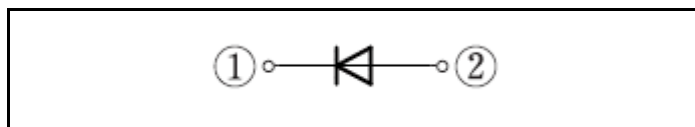
- High Recovery Speed
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX14



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		-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

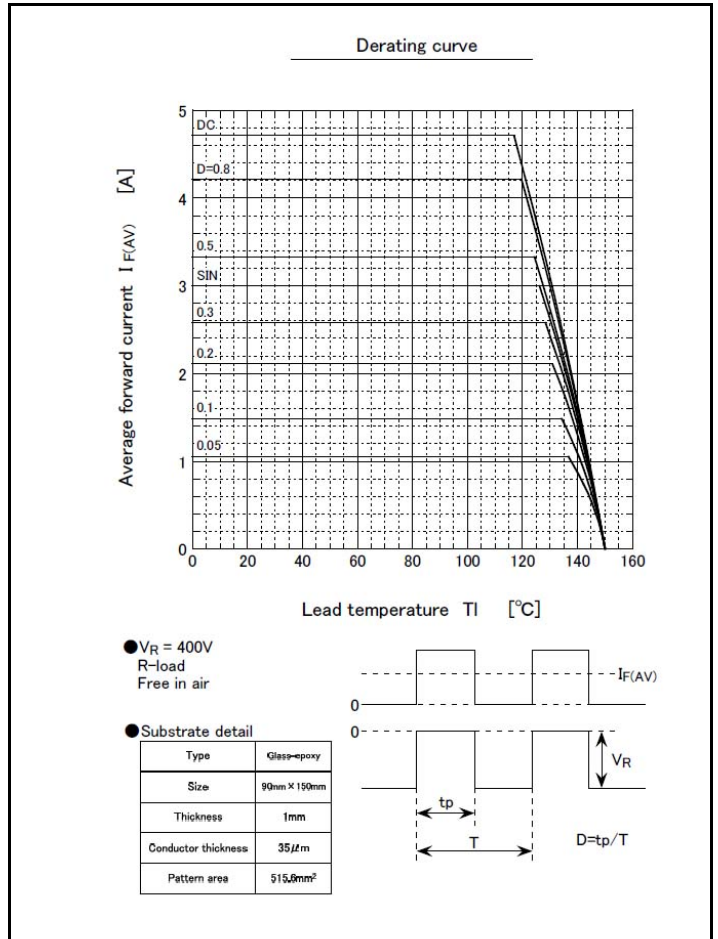
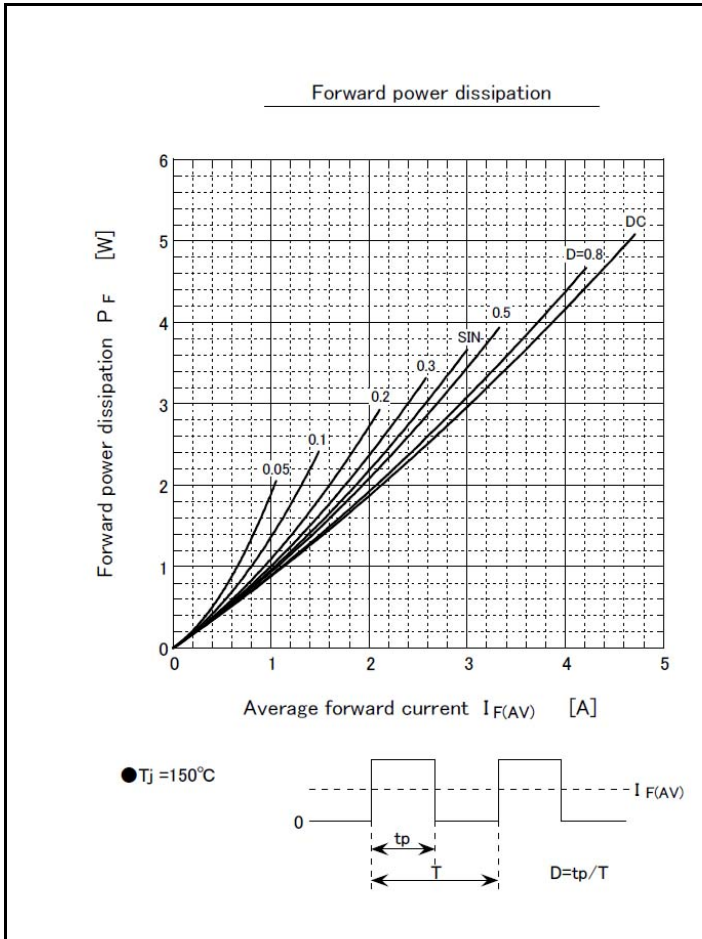
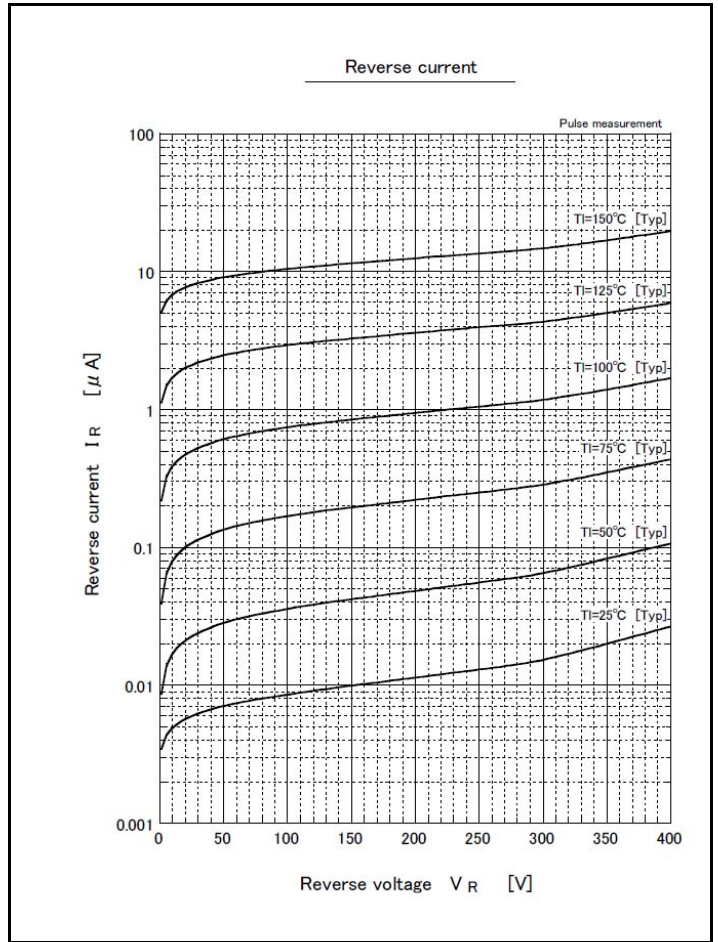
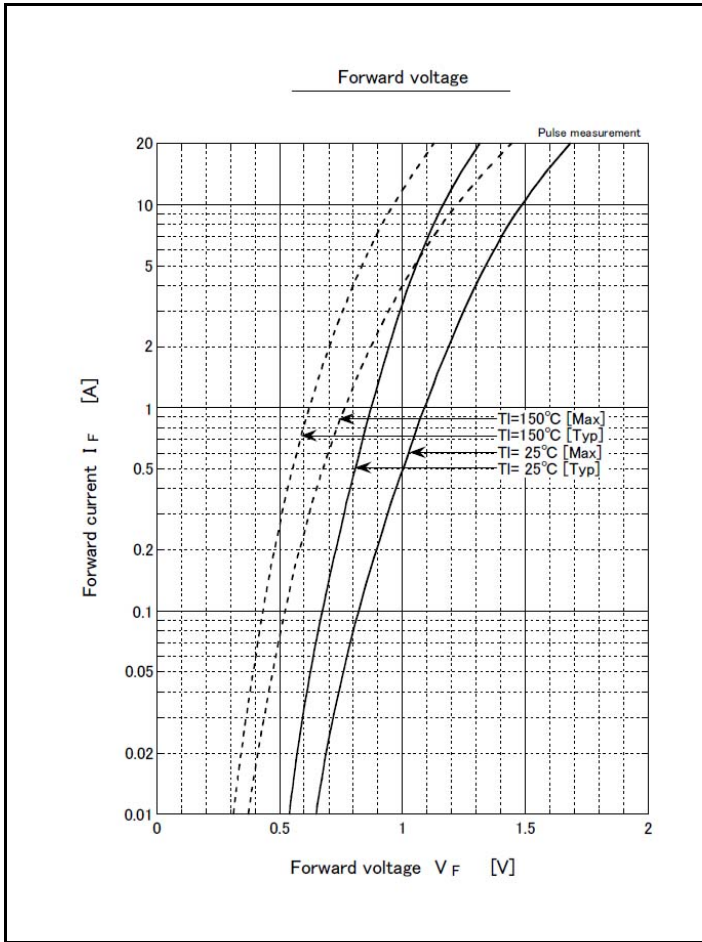
* :See the original Specifications

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

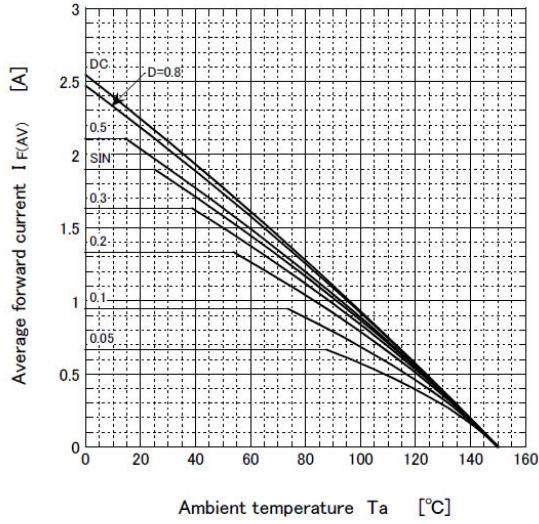
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3A, Pulse measurement			1.25	V
Reverse current	I_R	VR=400V, Pulse measurement			10	μ A
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			35	ns
Total capacitance	Ct	f=1MHz, VR=10V		34		pF
Thermal resistance	Rth(j-l)	Junction 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

CHARACTERISTIC DIAGRAMS



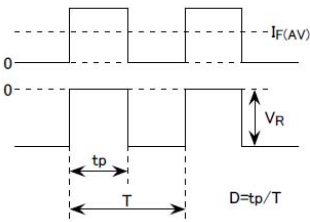
Derating curve



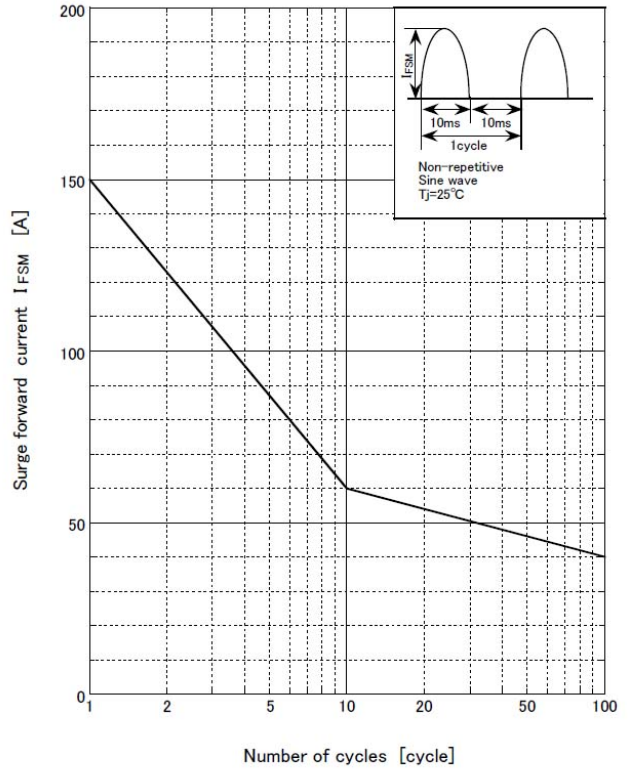
- $V_R = 400V$
R-load
Free in air

- Substrate detail

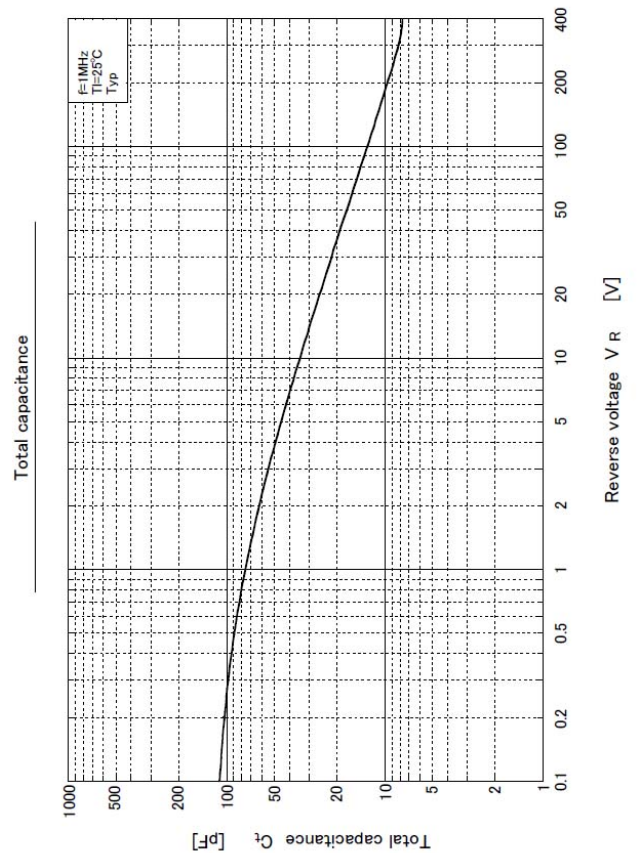
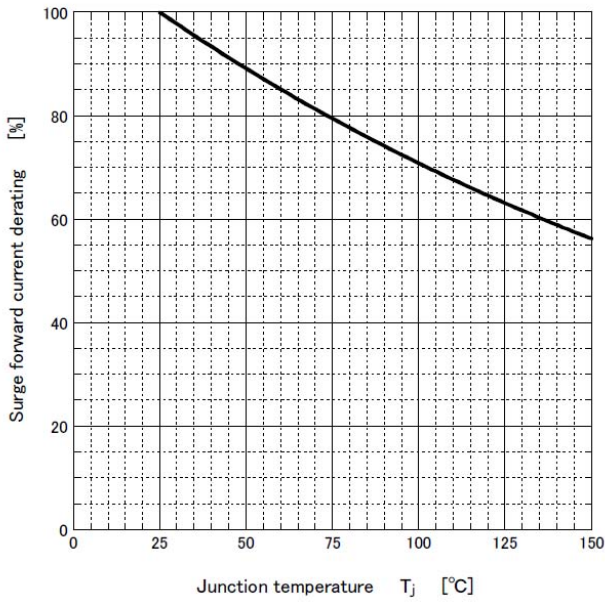
Type	Glass-epoxy
Size	90mm X 150mm
Thickness	1mm
Conductor thickness	35 μ m
Pattern area	515.9mm ²



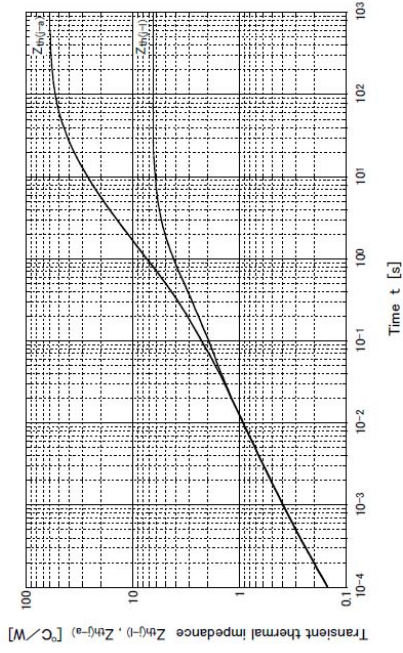
Surge forward current capability



Surge forward current derating vs Junction temperature



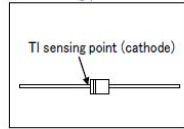
Transient thermal impedance



● Substrate detail

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

● TI sensing point



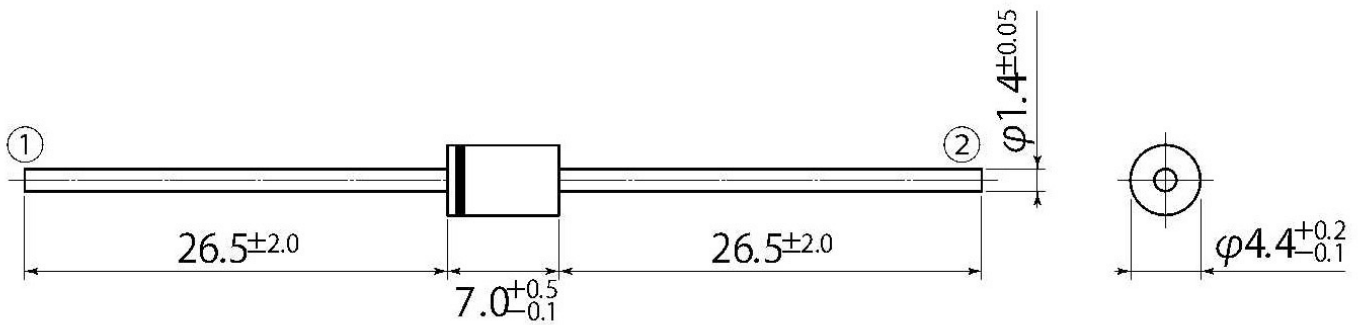
Outline Dimensions

unit:mm

scale: 2/1

A7

JEDEC Code	—
JEITA Code	—
House Name	AX14



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