

# S3L20U

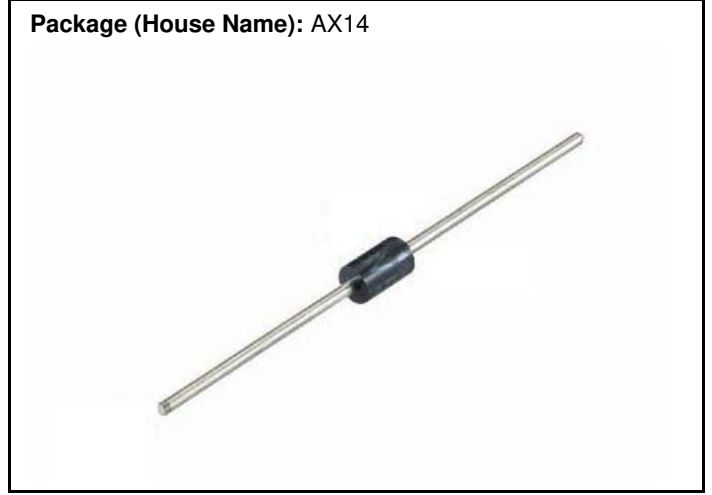
## Fast Recovery Diodes 200V, 3A

### Feature

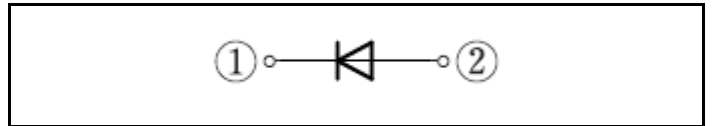
- High Recovery Speed
- Pb free terminal
- RoHS:Yes

### OUTLINE

Package (House Name): AX14



### Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-40 to 150	°C
Junction temperature	T <sub>j</sub>		150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		200	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Tl=128°C	3	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Ta=25°C	2.1	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	60	A

\* :See the original Specifications

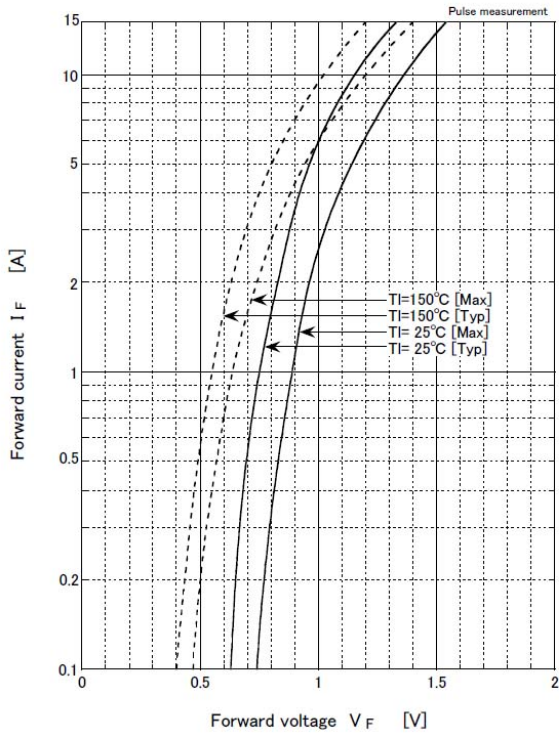
### Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =2.1A, Pulse measurement			0.98	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =200V, Pulse measurement			10	μA
Reverse recovery time	trr	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A			35	ns
Thermal resistance	R <sub>th(j-l)</sub>	Junction to lead			6.5	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient			60	°C/W

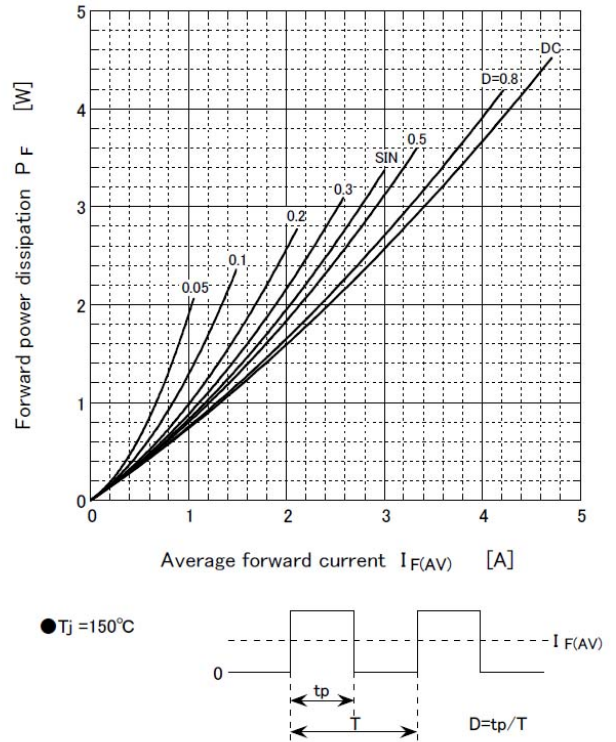
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# CHARACTERISTIC DIAGRAMS

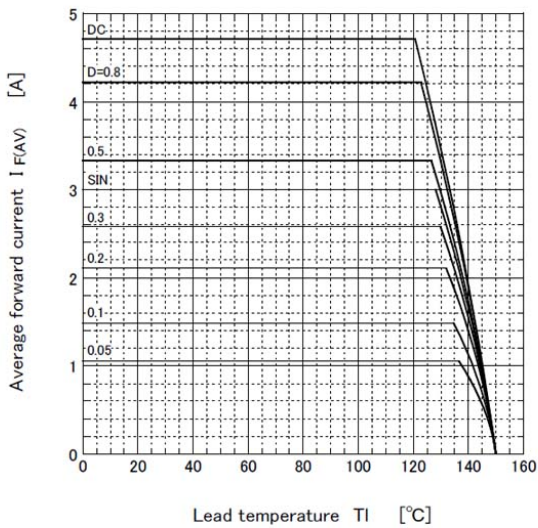
Forward voltage



Forward power dissipation



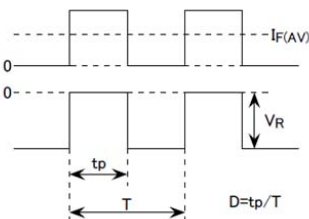
Derating curve



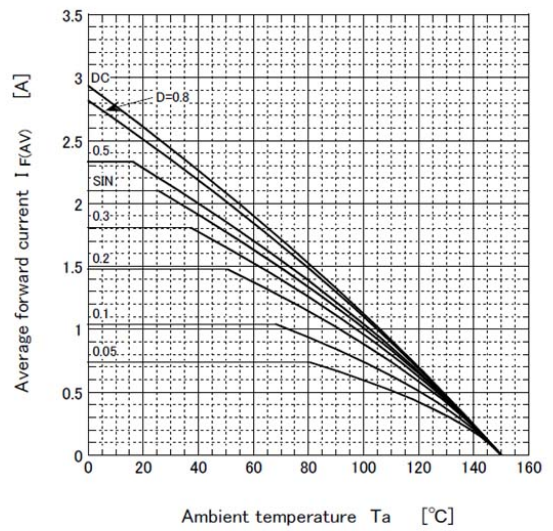
$V_R = 200\text{V}$   
R-load  
Free in air

Substrate detail

Type	Glass/epoxy
Size	90mm X 150mm
Thickness	1mm
Conductor thickness	35 $\mu\text{m}$
Pattern area	515.6mm <sup>2</sup>



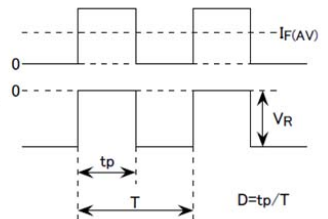
Derating curve



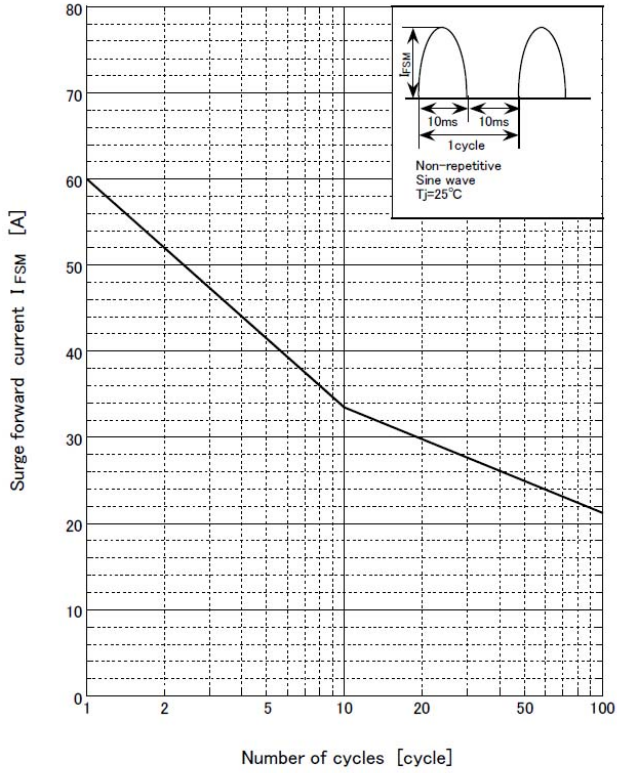
$V_R = 200\text{V}$   
R-load  
Free in air

Substrate detail

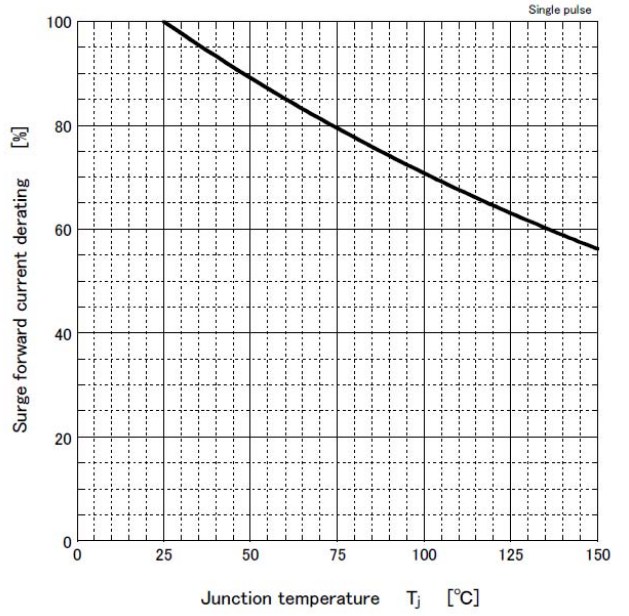
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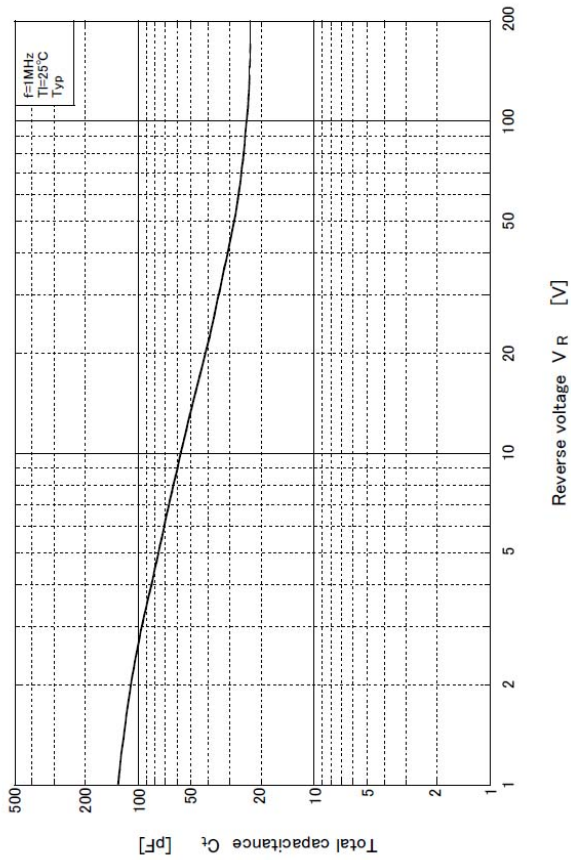
Surge forward current capability



Surge forward current derating vs Junction temperature



Total capacitance



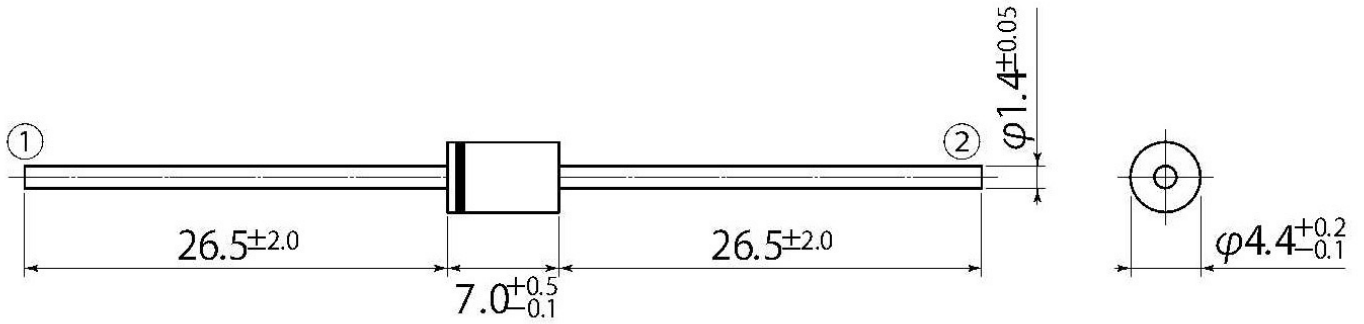
# Outline Dimensions

unit:mm

scale: 2/1

A7

JEDEC Code	—
JEITA Code	—
House Name	AX14



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