

S3K60

Fast Recovery Diodes

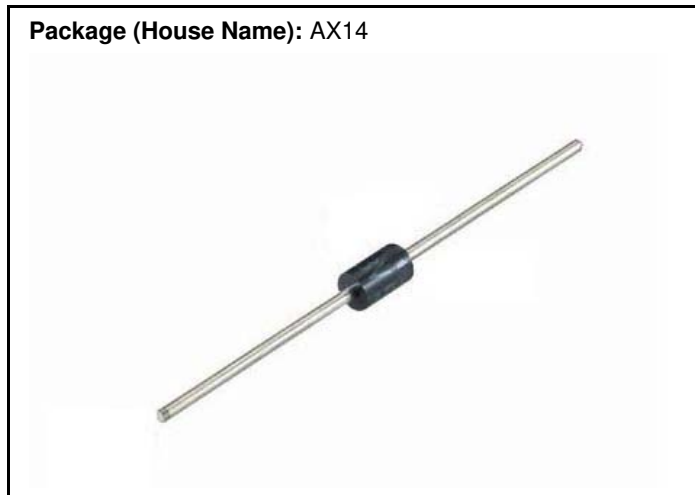
600V, 3A

Feature

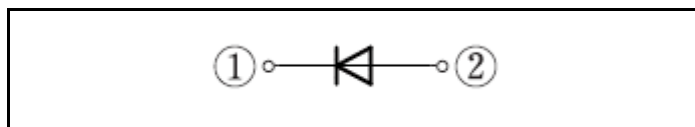
- High Voltage
- Low Noise
- Pb free terminal
- RoHS:Yes

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}		600	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=123°C *	3	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C *	1.7	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	120	A

* :See the original Specifications

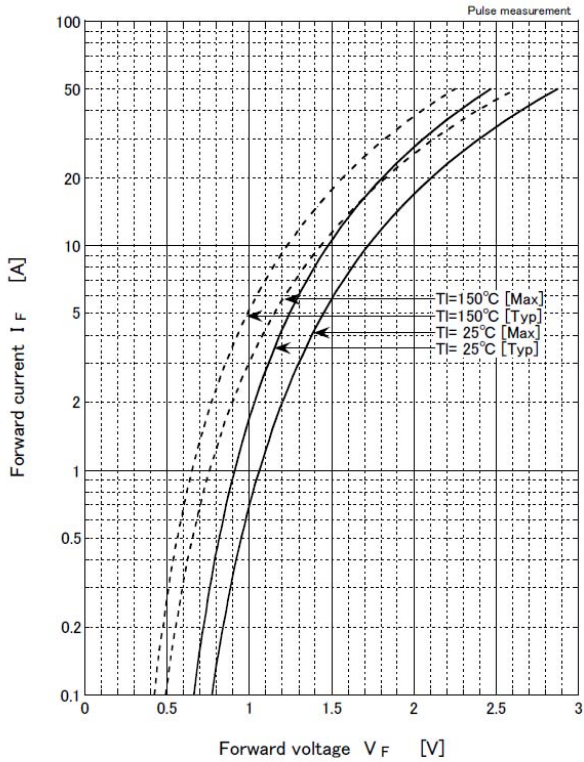
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3A, Pulse measurement			1.3	V
Reverse current	I_R	VR=600V, Pulse measurement			10	μ A
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.1IR			100	ns
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate *			6.5	$^{\circ}$ C/W
Thermal resistance	Rth(j-a)	Junction to ambient On glass-epoxy substrate *			60	$^{\circ}$ C/W

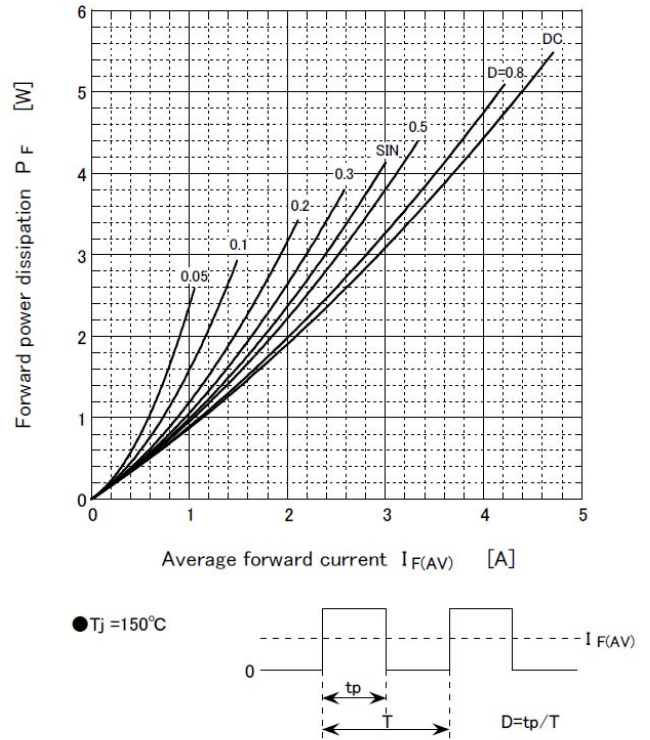
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

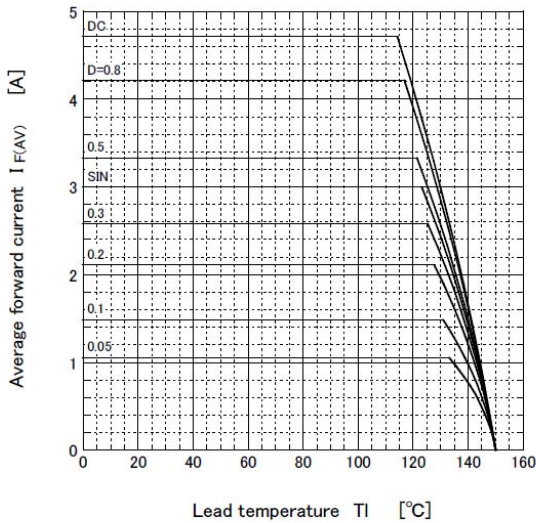
Forward voltage



Forward power dissipation



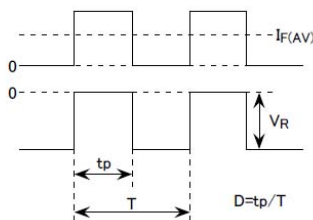
Derating curve



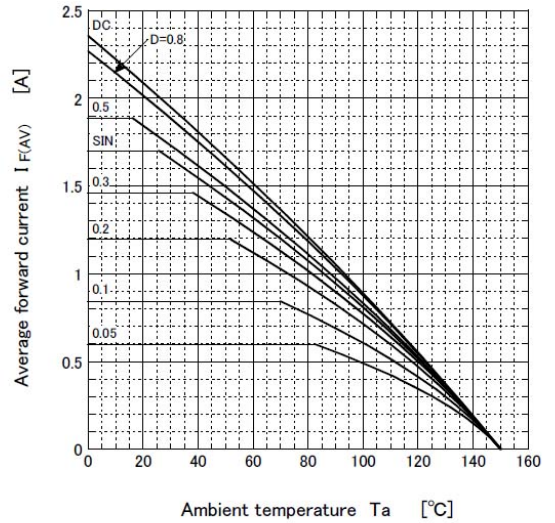
● $V_R = 600V$
R-load
Free in air

● Substrate detail

Type	Glass-epoxy
Size	90mm × 150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	515.8mm ²



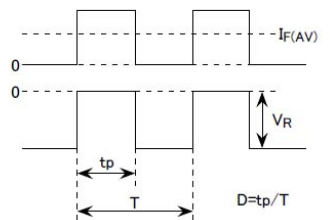
Derating curve



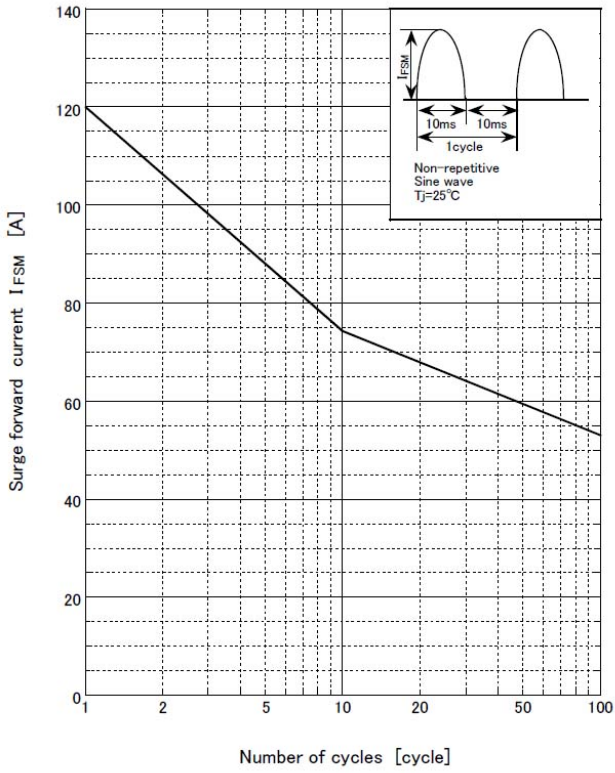
● $V_R = 600V$
R-load
Free in air

● Substrate detail

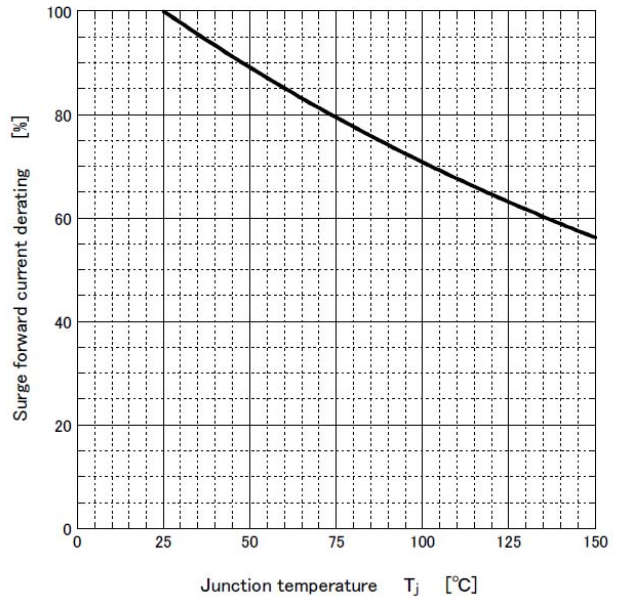
Type	Glass-epoxy
Size	90mm × 150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	515.8mm ²



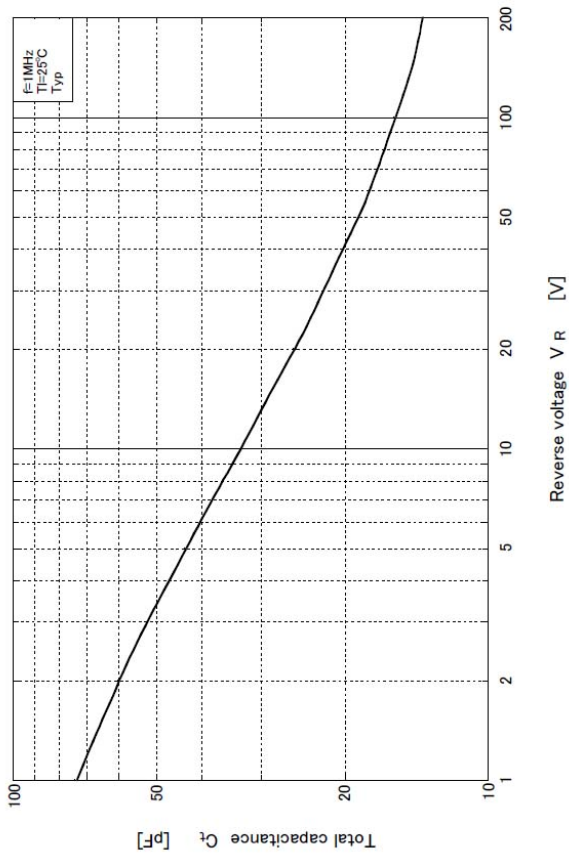
Surge forward current capability



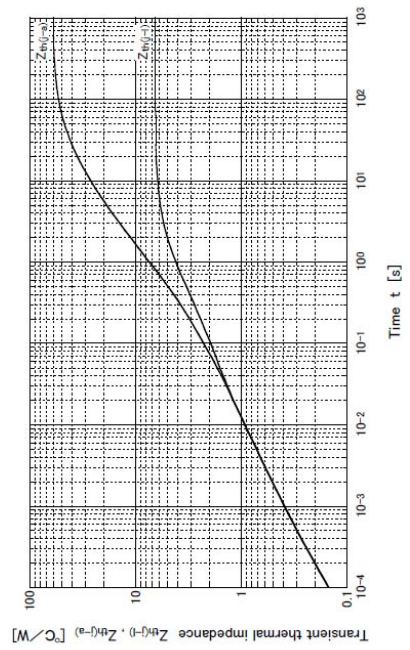
Surge forward current derating vs Junction temperature



Total capacitance



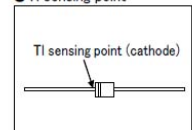
Transient thermal impedance



Substrate detail

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

TI sensing point



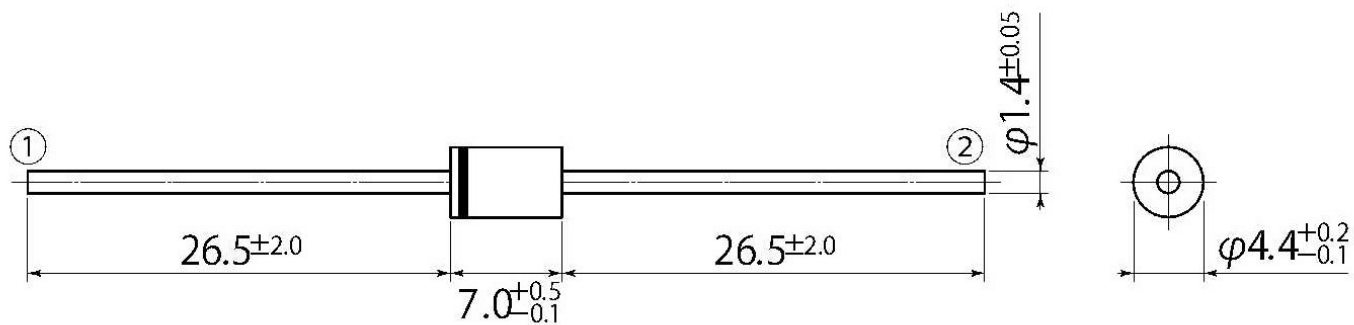
Outline Dimensions

unit:mm

scale: 2/1

A7

JEDEC Code	—
JEITA Code	—
House Name	AX14



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