SHINDENGEN

General Purpose Rectifiers

Single

S3V60

600V 3.5A
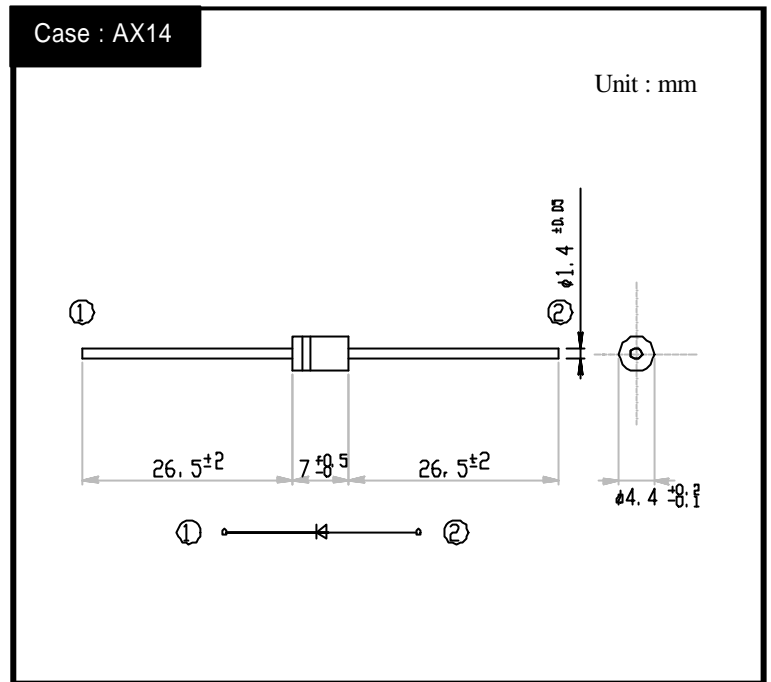
FEATURES

High voltage
High reliability with superior moisture resistance
Applicable to Automatic Insertion

APPLICATION

Conventional Rectification
Power source(Power Supply)
Home Appliances, Office Equipment
Telecommunication, Factory Automation

OUTLINE DIMENSIONS

Case : AX14

Unit : mm

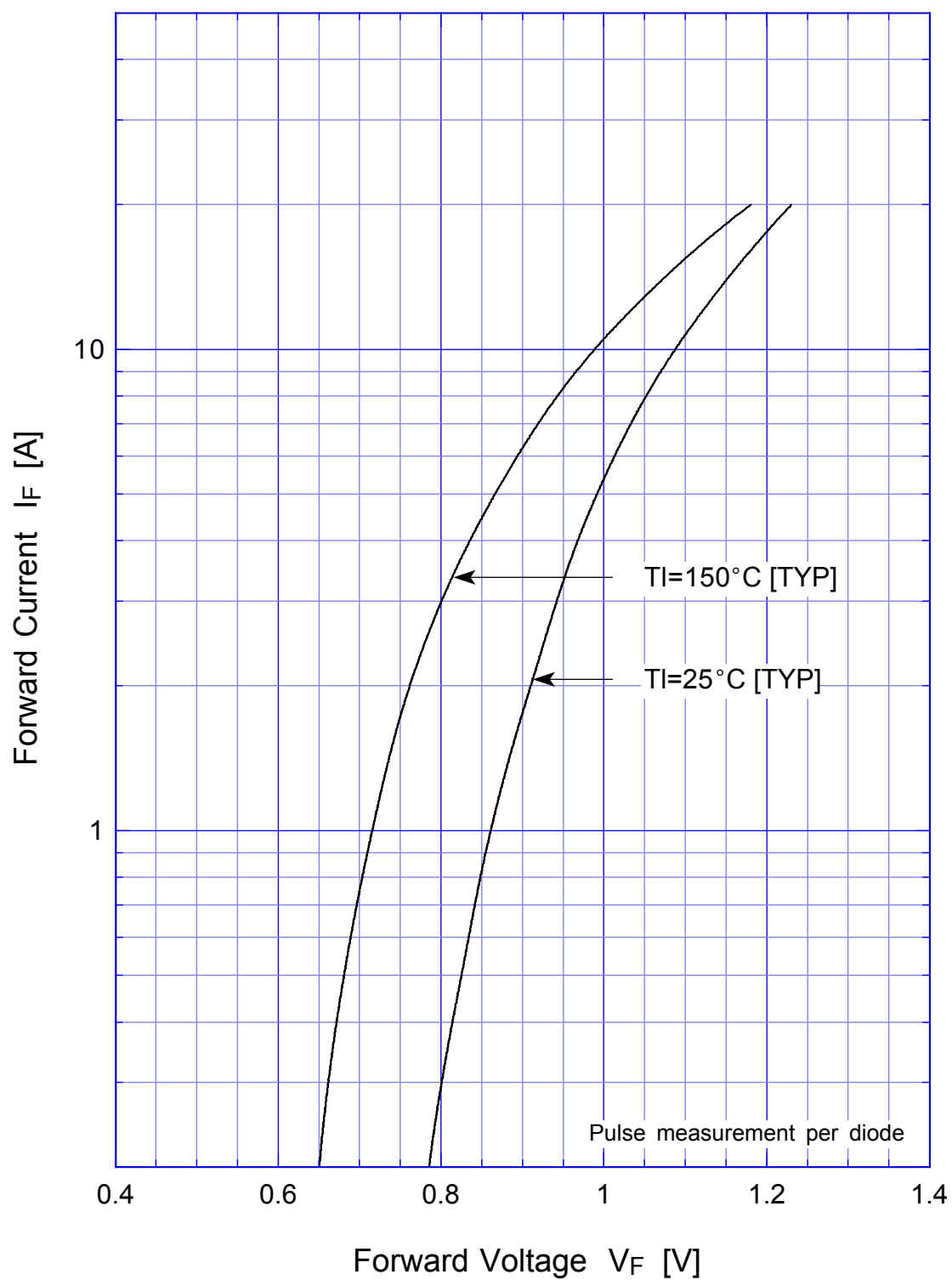## RATINGS

Absolute Maximum Ratings (If not specified Tl=25)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55 150	
Operating Junction Temperature	Tj		150	
Maximum Reverse Voltage	V_{RM}		600	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Ta=40 With 20× 20× 1mm copper plate	3.5	A
		50Hz sine wave, R-load, Ta=40 Without heatsink	2.6	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Tj=25	120	A
Current Squared Time	I^2t	1ms t 10ms Tj=25	60	A^2s

Electrical Characteristics (If not specified Tl=25)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	IF=2.6A Pulse measurement	Max. 1.05	V
Reverse Current	I_R	$V_R=V_{RM}$ Pulse measurement	Max. 10	μA
Thermal Resistance	jl	junction to lead	Max.6.5	/W

S3Vx   Forward Voltage

Forward Current I_F [A]

10

1

Tl=150°C [TYP]

Tl=25°C [TYP]

Pulse measurement per diode

0.4   0.6   0.8   1   1.2   1.4

Forward Voltage V_F [V]

S3Vx — Forward Power Dissipation

SIN

Forward Power Dissipation P_F [W]

Average Rectified Forward Current I_O [A]
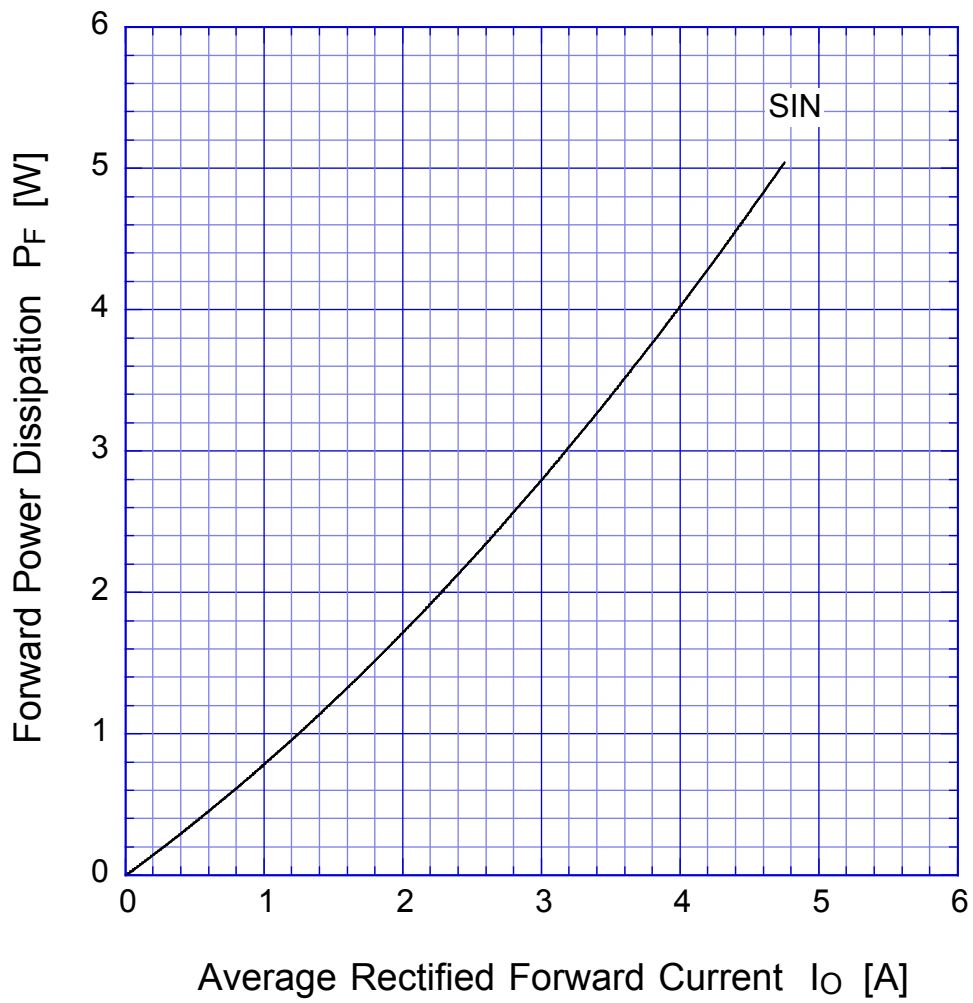
Tj = 150°C
Sine wave

S3Vx   Peak Surge Forward Capability

Peak Surge Forward Current I_{FSM} [A]

Number of Cycles [cycles]

I_{FSM}

10ms   10ms

1 cycle

non-repetitive,
sine wave,
Tj=25°C before
surge current is applied

S3Vx   Derating Curve

Average Rectified Forward Current I_O [A] vs Ambient Temperature T_a [°C]

Heatsink
20mm² × 1mm Cu

with heatsink
a=10mm
a=15mm
a=24mm

without heatsink
l=24mm
l=15mm
l=10mm
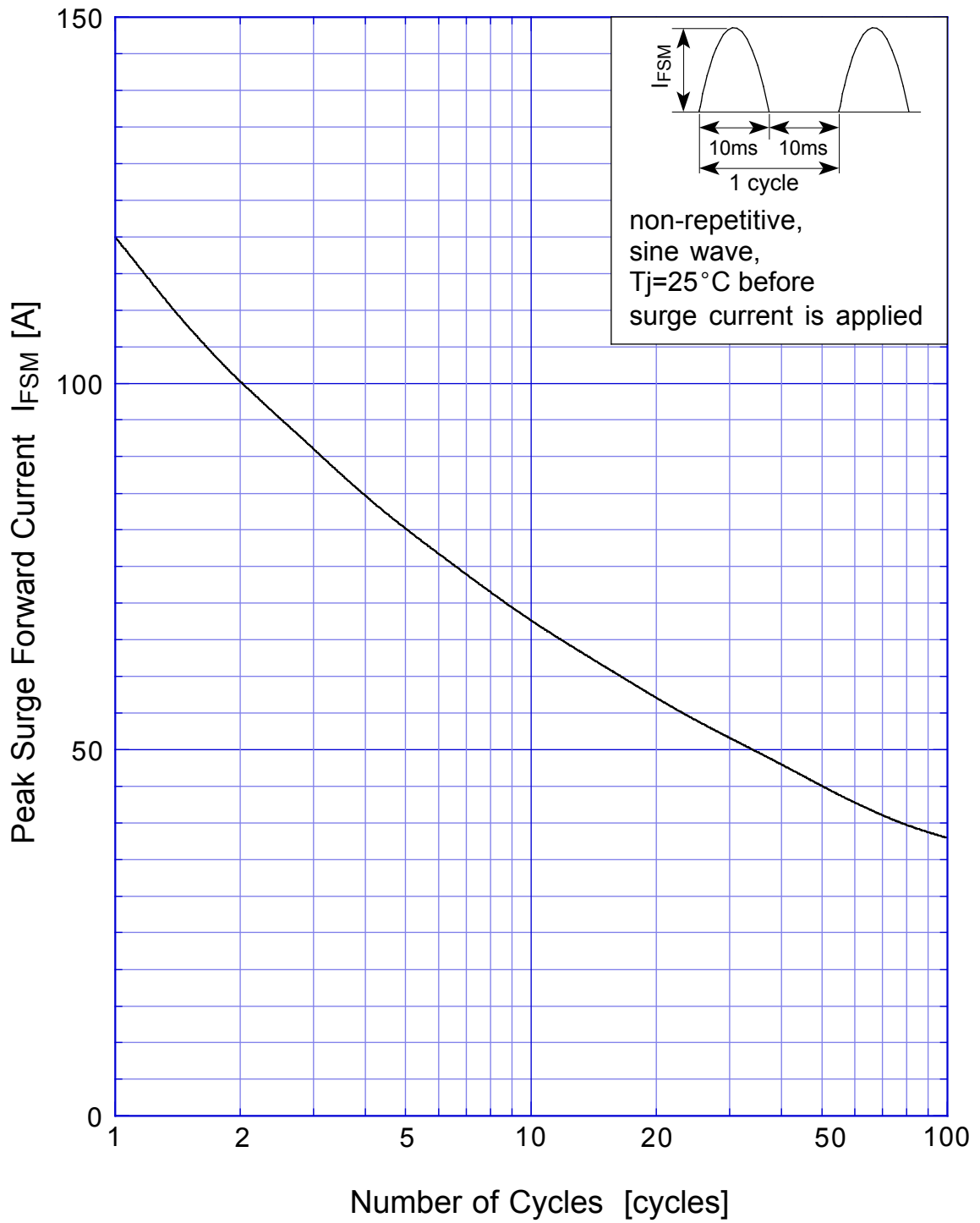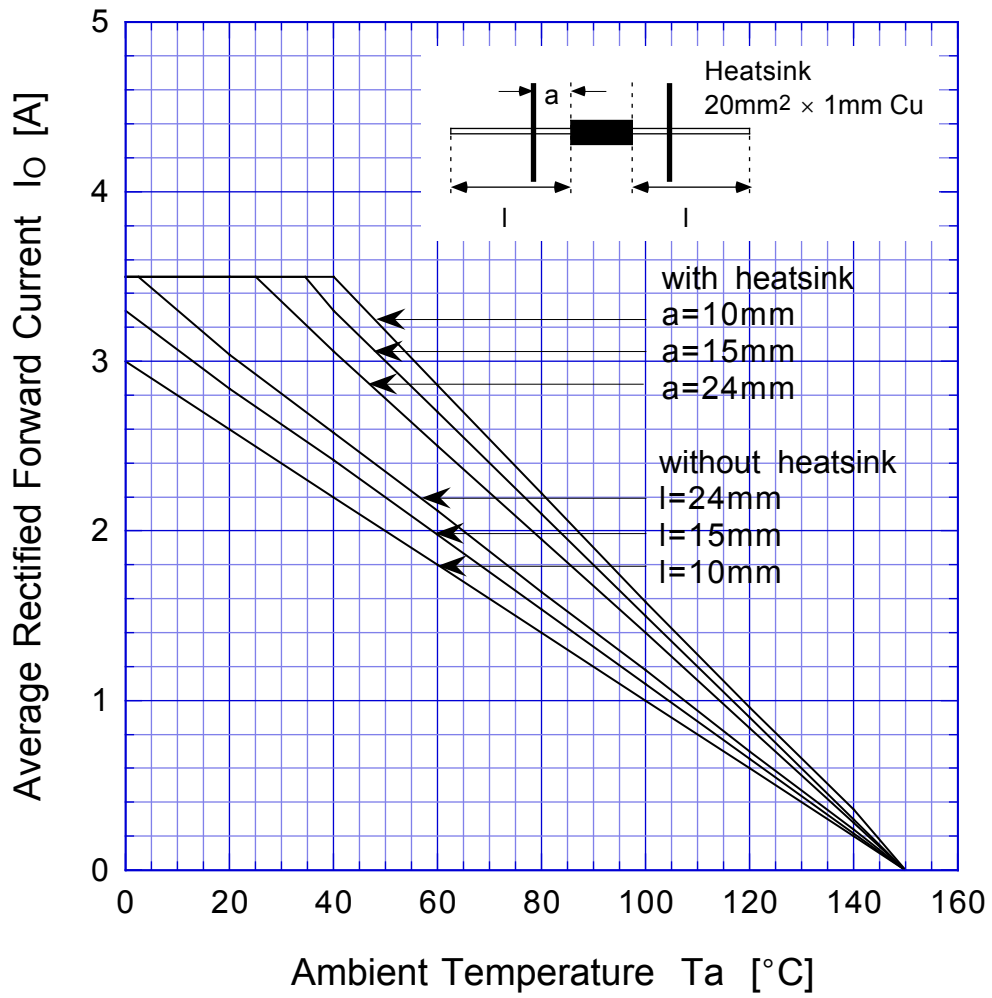
Sine wave
R-load
Free in air