

D3S4M

Schottky Barrier Diodes

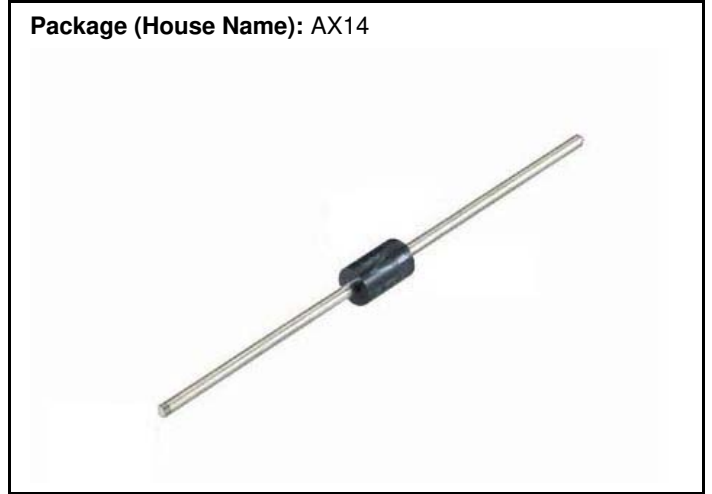
40V, 3A

Feature

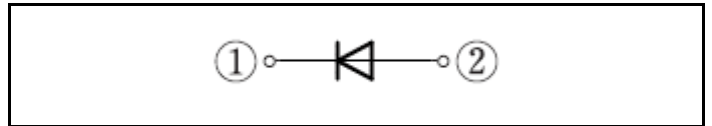
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

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}		-40 to 150	°C
Junction temperature	T_j		-40 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		40	V
Repetitive peak surge reverse voltage	V_{RRSM}	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=134°C ※	3	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=63°C ※	3	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=58°C ※	2	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, Tj=25°C	80	A
Repetitive peak surge reverse power	P_{RRSM}	Pulse width 10μs, Tj=25°C	330	W

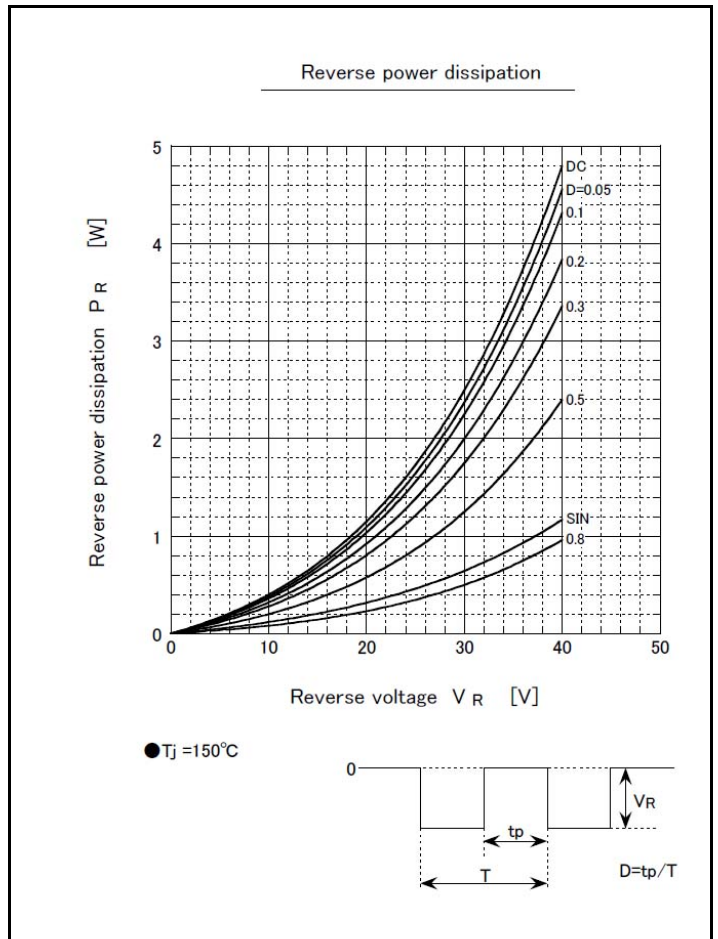
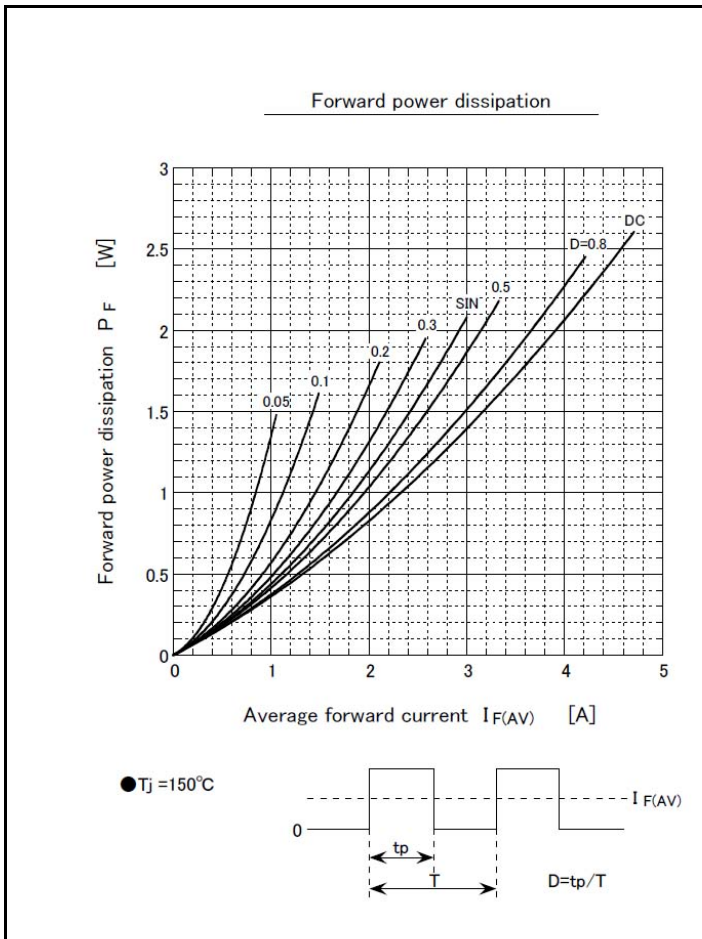
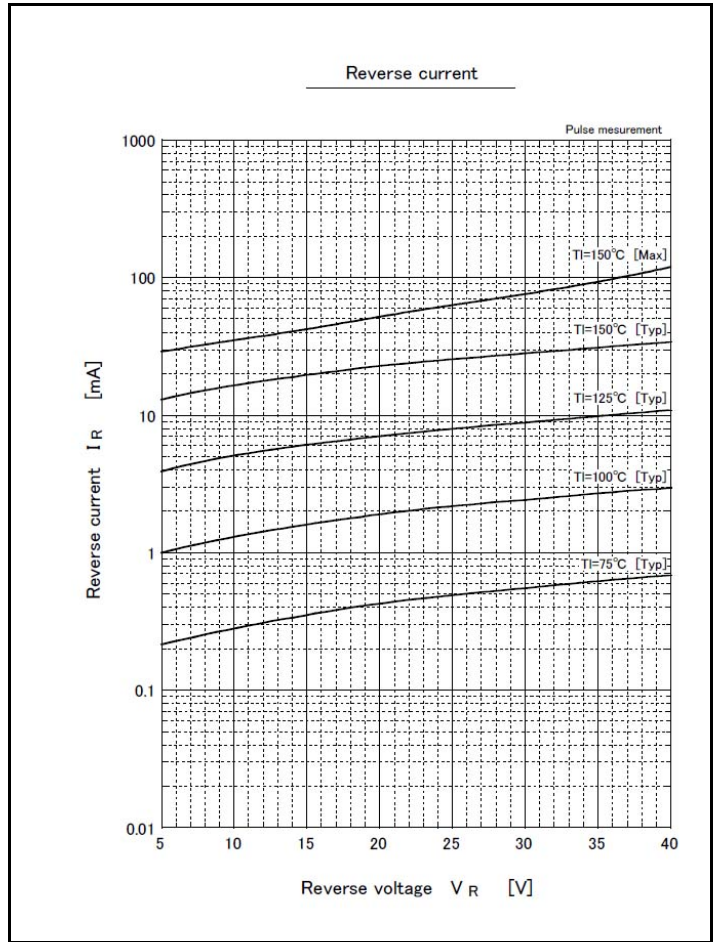
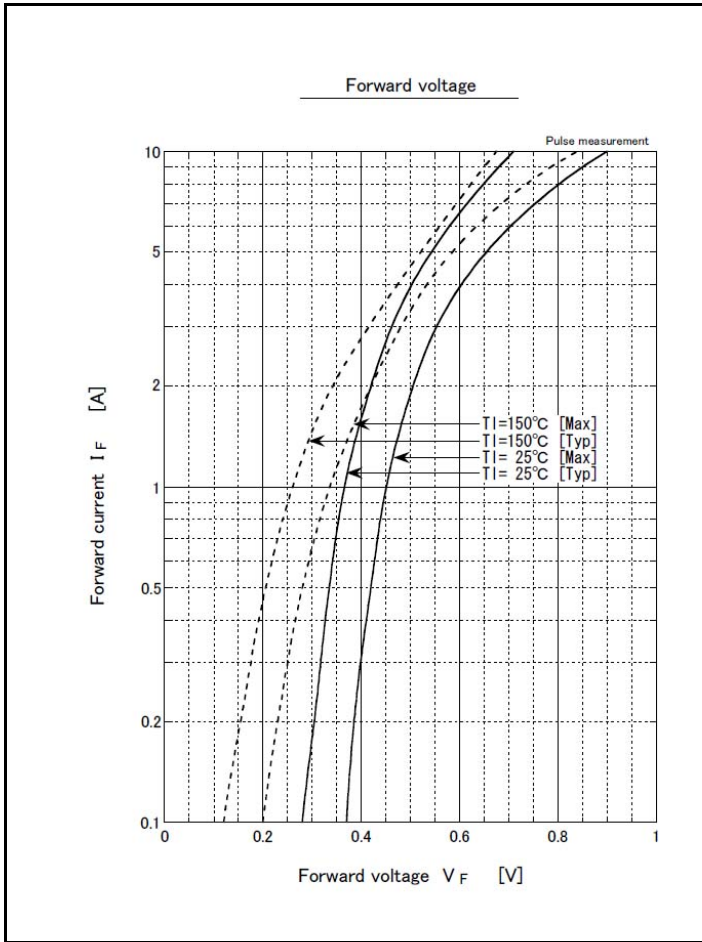
※ :See the original Specifications

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

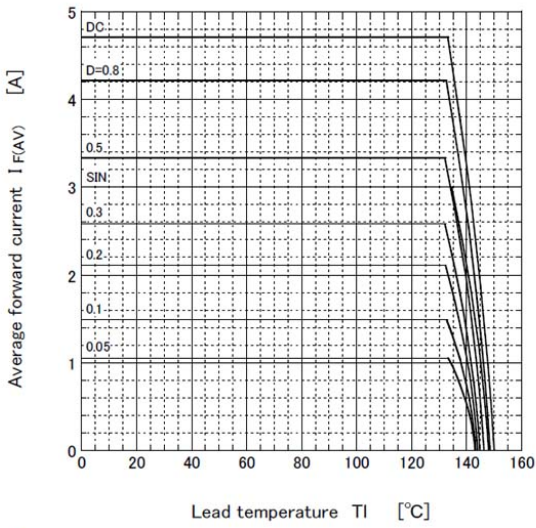
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=3A$, Pulse measurement			0.55	V
Reverse current	I_R	$V_R=40V$, Pulse measurement			3.5	mA
Total capacitance	C_t	$f=1MHz$, $V_R=10V$		150		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate ※			6.5	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			36	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			64	°C/W

※ :See the original Specifications

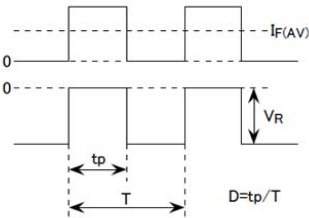
CHARACTERISTIC DIAGRAMS



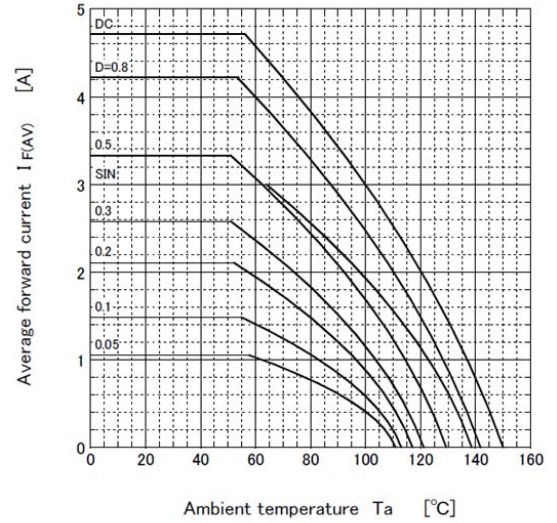
Derating curve



● $V_R = 20V$
R-load
Free in air

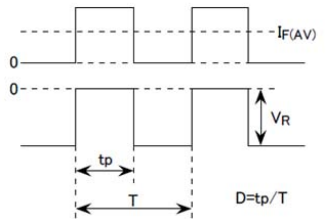


Derating curve

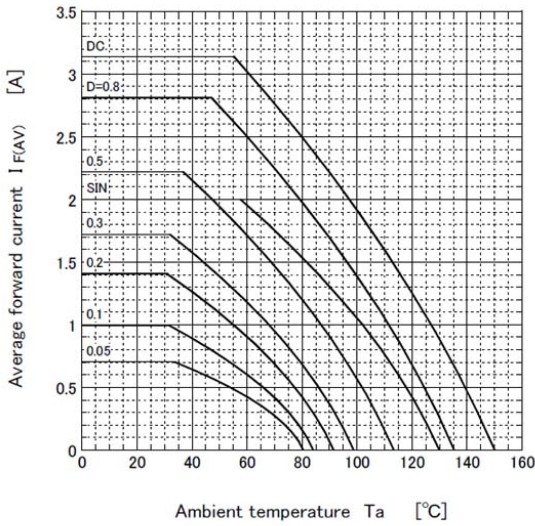


● $V_R = 20V$
R-load
Free in air
Copper heatsink

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

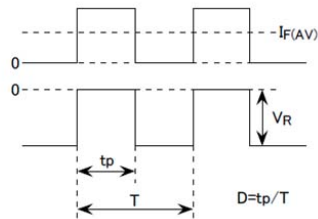


Derating curve

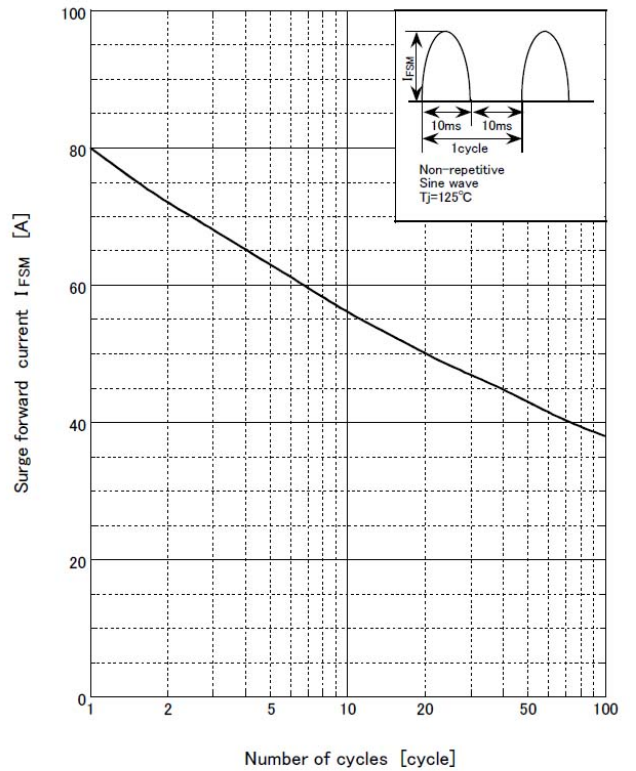


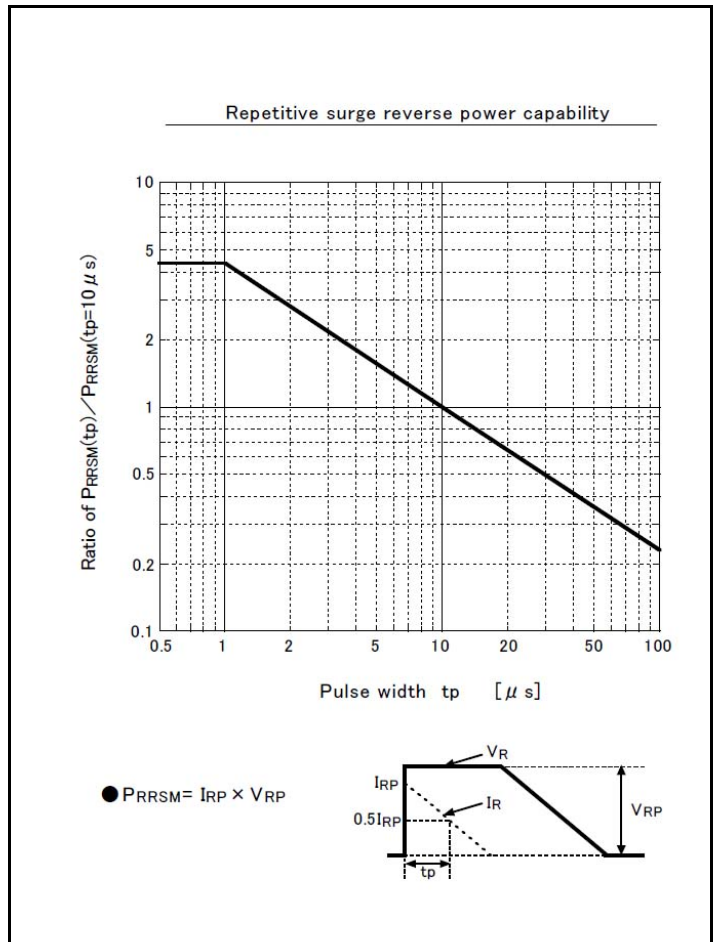
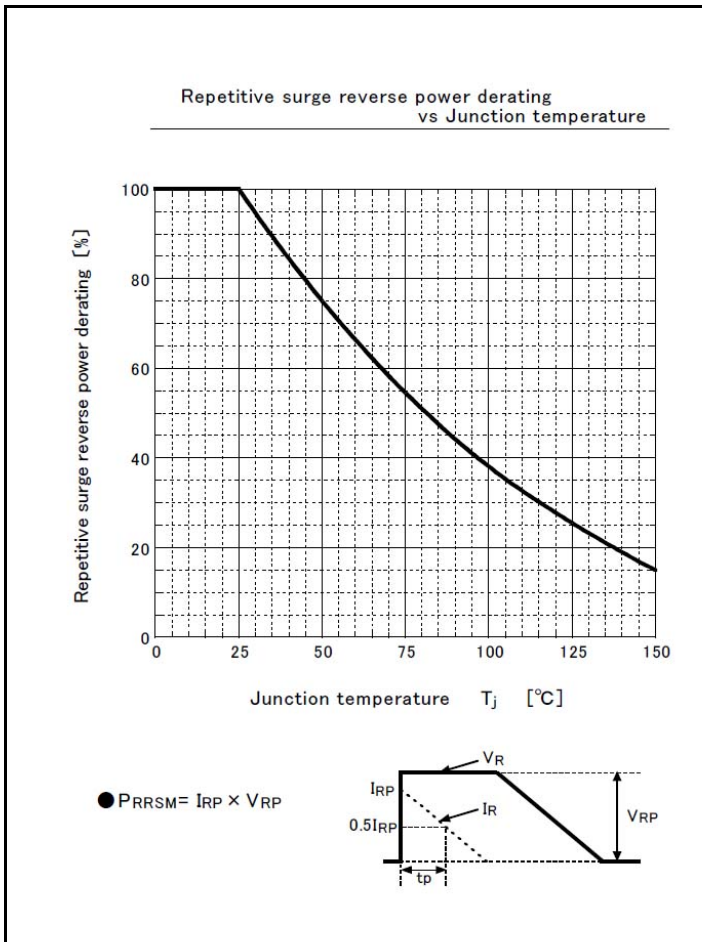
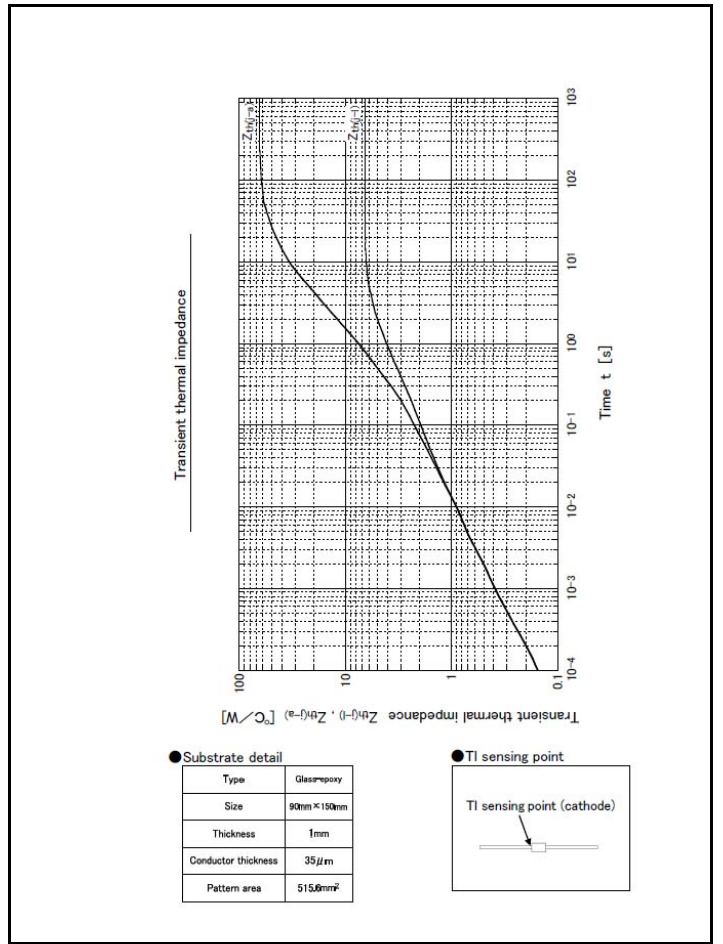
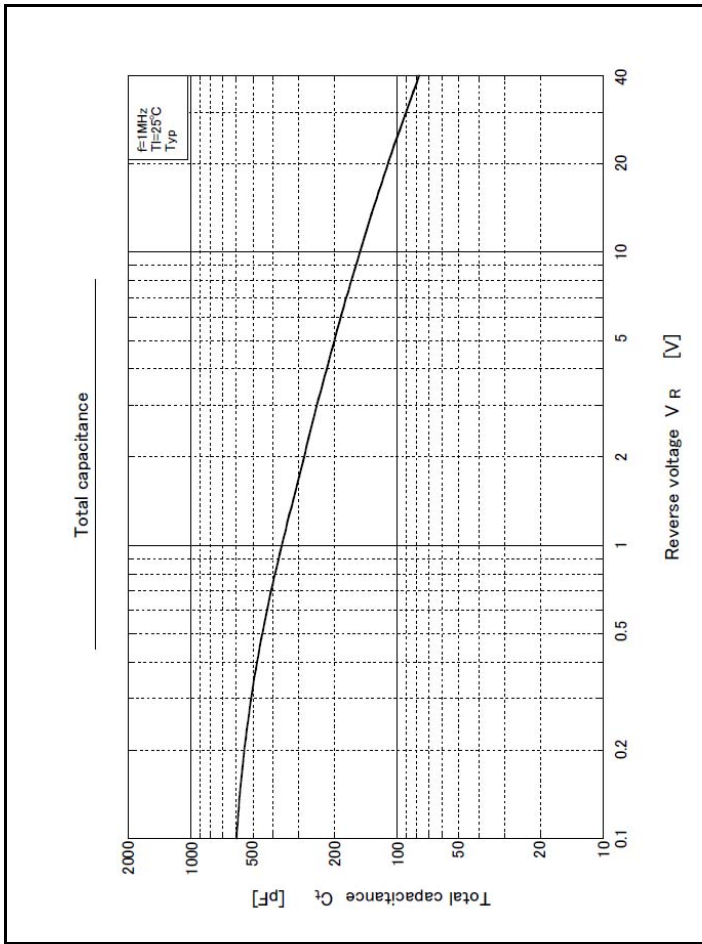
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R-load
Free in air

Type	Glass-epoxy
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Pattern area	515.8mm ²



Surge forward current capability





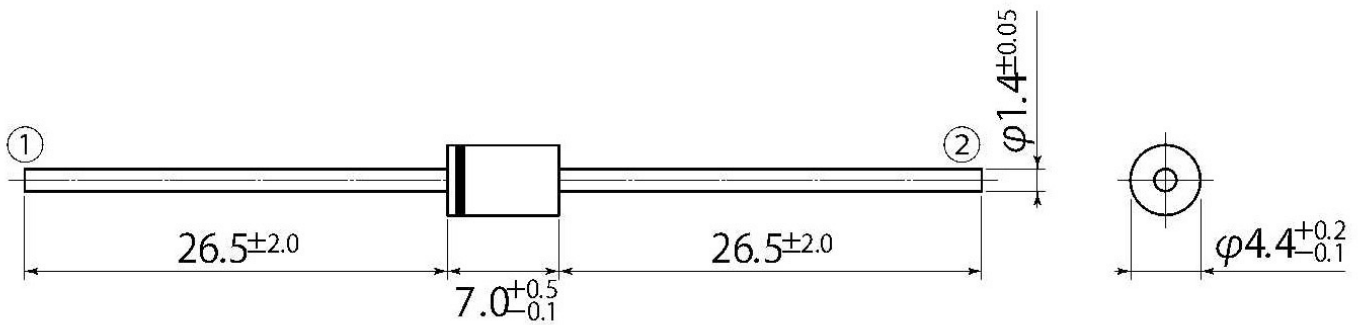
Outline Dimensions

unit:mm

scale: 2/1

A7

JEDEC Code	—
JEITA Code	—
House Name	AX14



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