

## S1ZAS4

Schottky Barrier Diodes

40V, 1.2A

### Feature

- SMD
- Low  $V_F$
- Pb free terminal
- RoHS:Yes

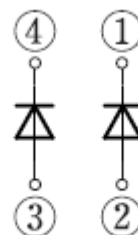
### OUTLINE

Package (House Name): 1Z

Package (JEDEC Code): TO-269AA



### Equivalent circuit



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

Item	Symbol	Conditions	Ratings		Unit
			MIN	MAX	
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>		40		V
Repetitive peak surge reverse voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty=1/40	45		V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On alumina substrate, 1 element operation, Ta=49°C	1.2		A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On alumina substrate, 2 elements operation, Ta=45°C, per diode	0.9		A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, 1 element operation, Ta=47°C	1		A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, 2 elements operation, Ta=43°C	0.72		A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, T <sub>j</sub> =125°C	40		A
Repetitive peak surge reverse power	P <sub>RRSM</sub>	Pulse width 10μs, T <sub>j</sub> =25°C, per diode	60		W

※ : See the original Specifications

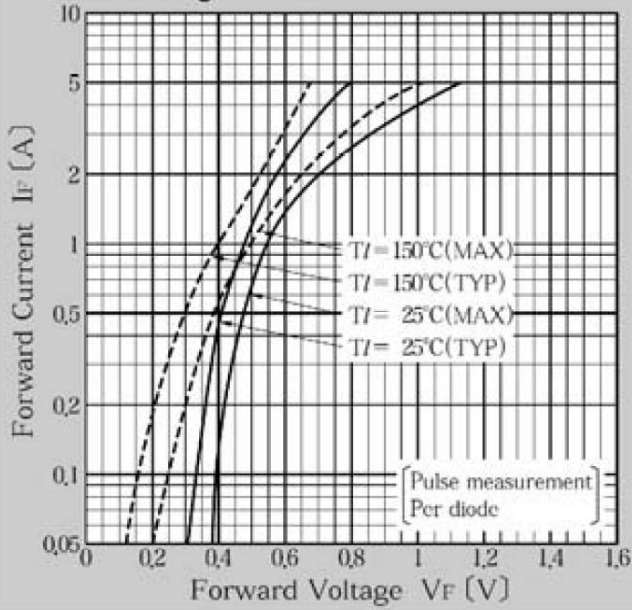
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A, Pulse measurement, per diode			0.55	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =40V, Pulse measurement, per diode			1	mA
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V, per diode		65		pF
Thermal resistance	R <sub>th(j-l)</sub>	Junction to lead			25	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, On alumina substrate, 1 element operation			93	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, On alumina substrate, 2 elements operation, per diode			140	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, On glass-epoxy substrate, 1 element operation			120	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, On glass-epoxy substrate, 2 elements operation, per diode			186	°C/W

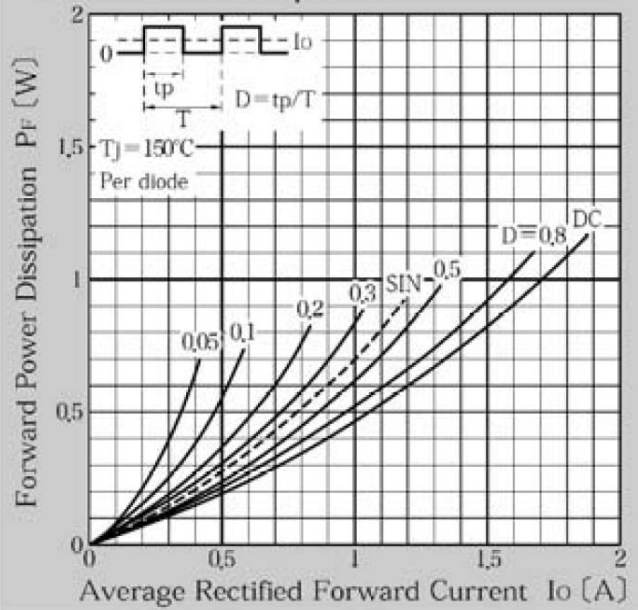
※ : See the original Specifications

# CHARACTERISTIC DIAGRAMS

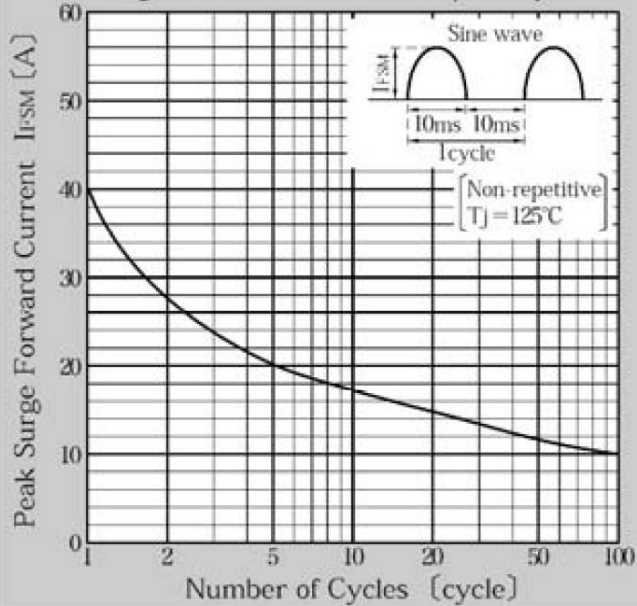
### Forward Voltage



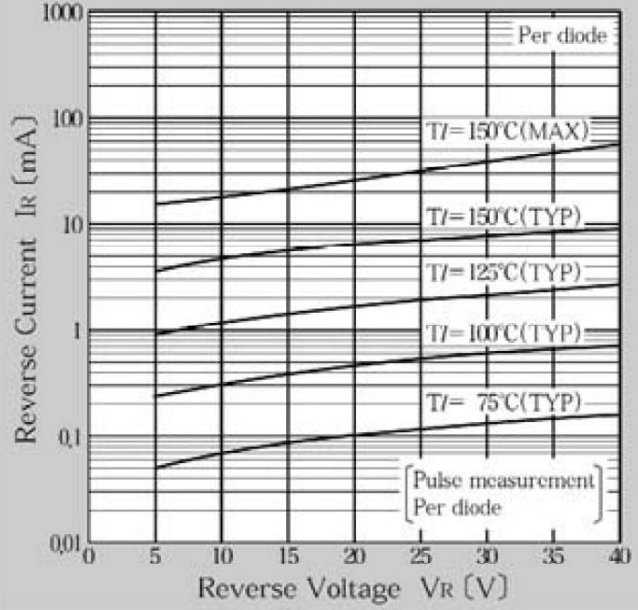
### Forward Power Dissipation

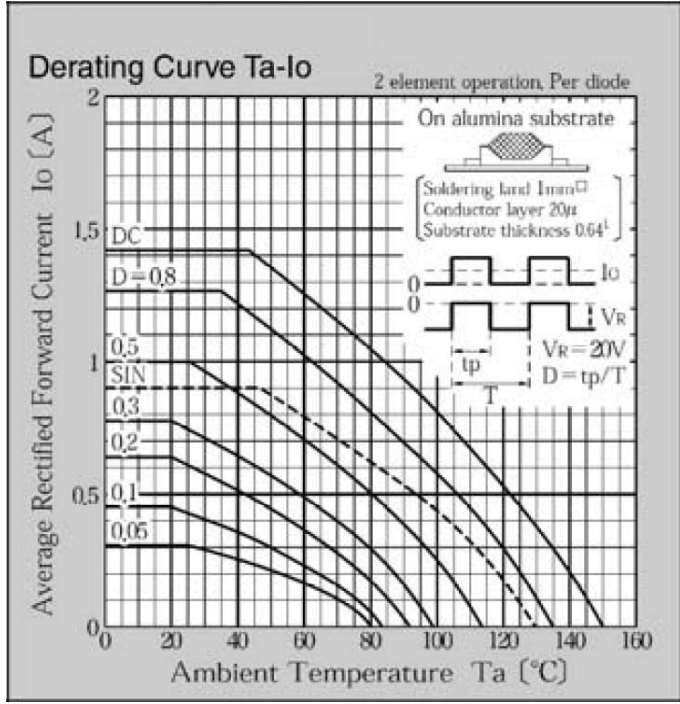
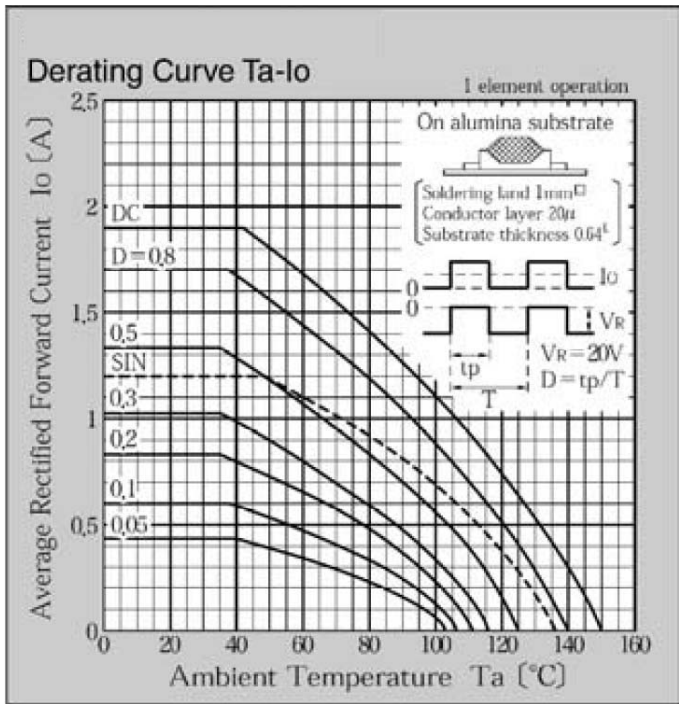
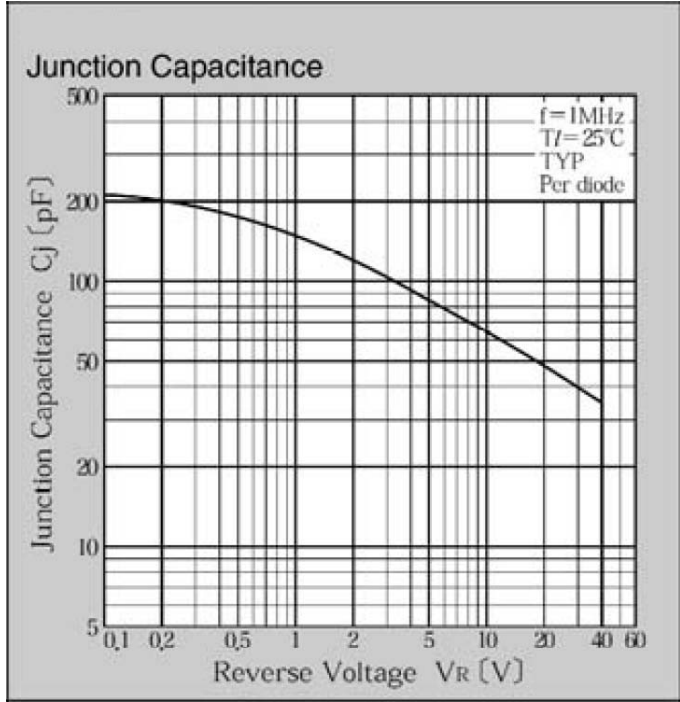
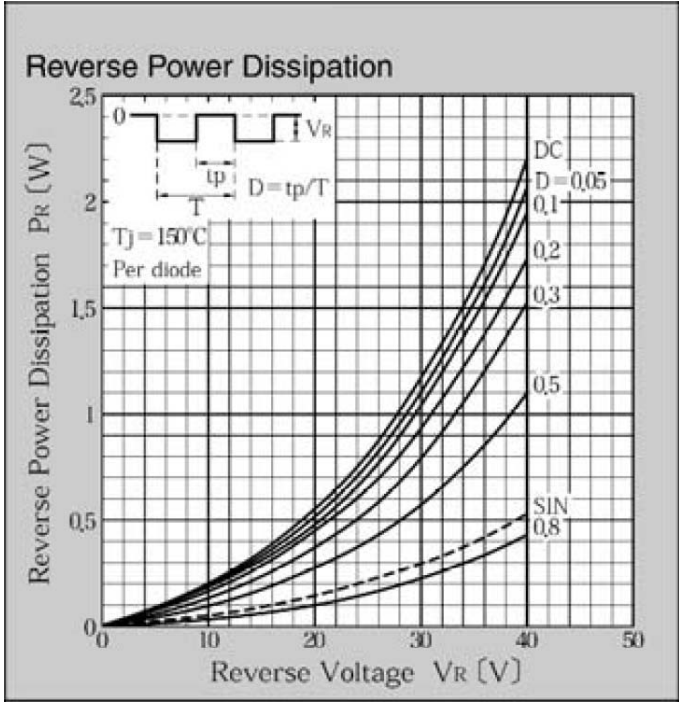


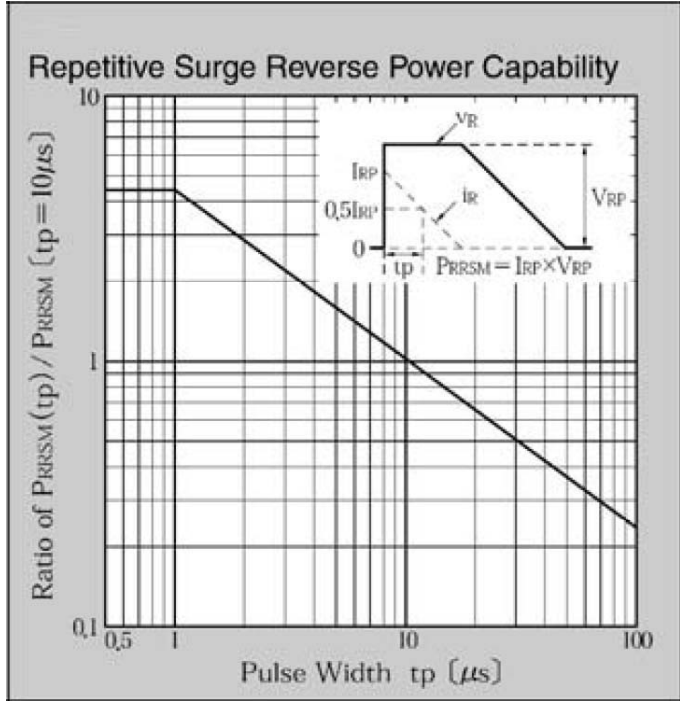
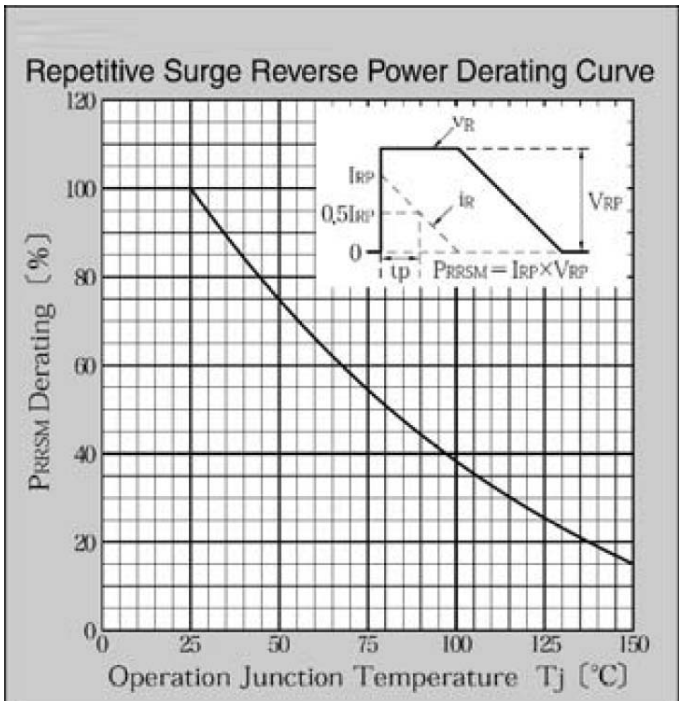
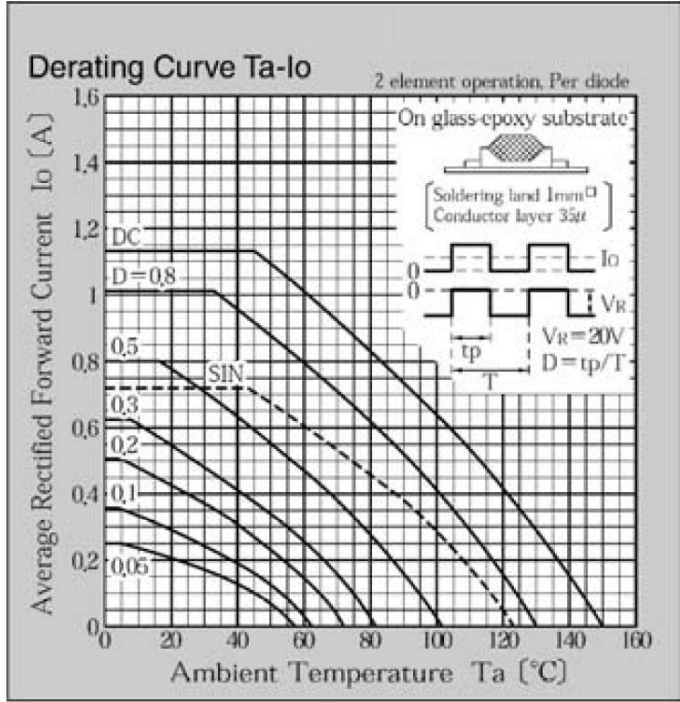
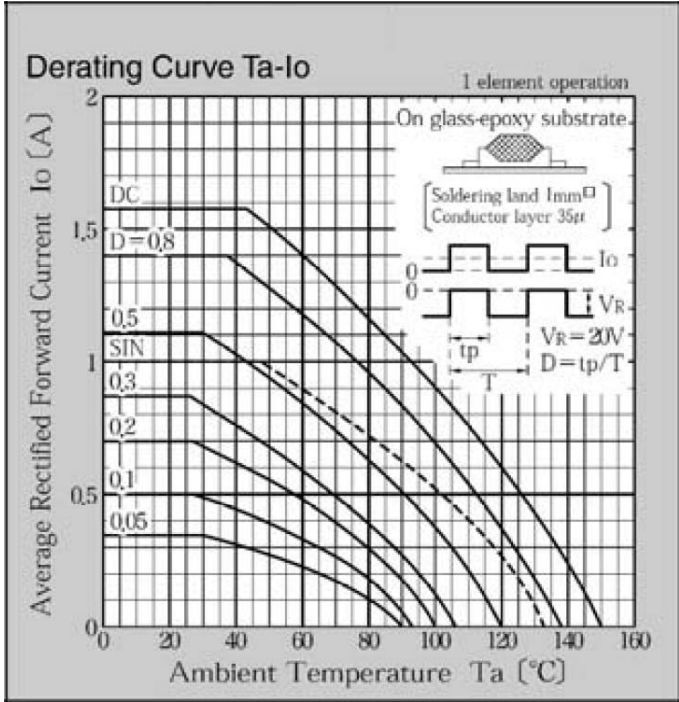
### Peak Surge Forward Current Capability



### Reverse Current

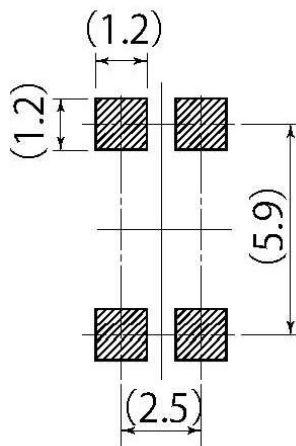
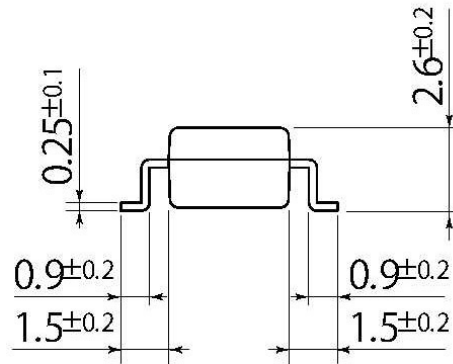
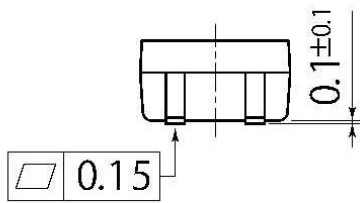
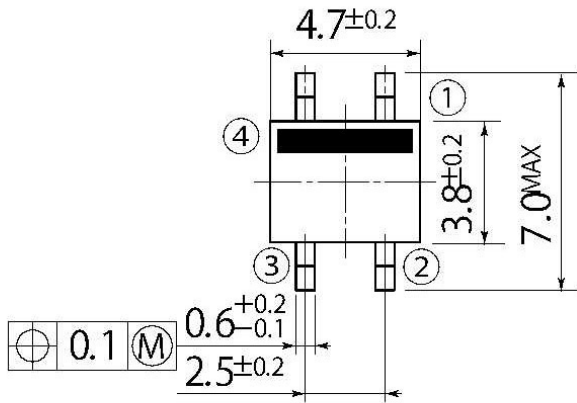






C2

JEDEC Code	TO-269AA
JEITA Code	-
House Name	1Z(SMD)



Referential Soldering Pad

• Optimize soldering pad to the board design and soldering condition.



## Notes

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