

# SHINDENGEN

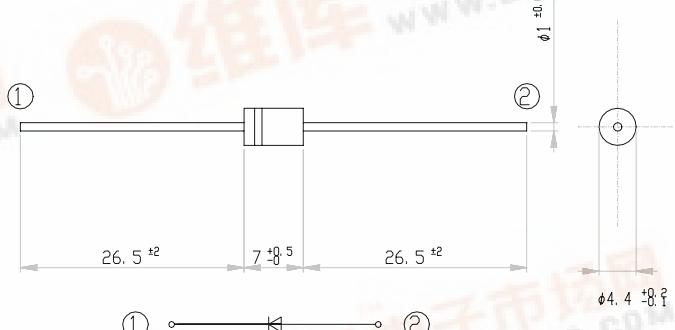
Sidac

**K1V16**

## OUTLINE DIMENSIONS

Case : AX10

(Unit : mm)



## RATINGS

### ● Absolute Maximum Ratings

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-40~125	°C
Operating Junction Temperature	T <sub>j</sub>		125	°C
Maximum Off-state Voltage	V <sub>DRM</sub>		115	V
RMS On-state Current	I <sub>T</sub>	T <sub>l</sub> = 109°C, 50Hz sine wave (θ = 180°)	1	A
Surge On-state Current	I <sub>TSM</sub>	T <sub>j</sub> = 25°C, 50Hz sine wave (θ = 180°), non-repetitive 1-cycle peak value	20	A
Pulse On-state Current	I <sub>TRM</sub>	T <sub>a</sub> = 25 °C, pulse width t <sub>o</sub> = 10 μ s, sine wave, repetitive peak value f = 1 kHz	25	A
		T <sub>a</sub> = 25 °C, pulse width t <sub>o</sub> = 10 μ s, sine wave, repetitive peak value f = 60 Hz	80	
Critical Rate of Rise of On-state Current	dI <sub>T</sub> /dt		80	A/μ s

### ● Electrical Characteristics (T<sub>l</sub>=25°C)

Item	Symbol	Conditions	Ratings	Unit
Breakover Voltage	V <sub>BO</sub>	I <sub>B</sub> = 0, 50Hz sine wave	145~170	V
Off-state Current	I <sub>DRM</sub>	V <sub>D</sub> = V <sub>DRM</sub>	Max 10	μ A
Breakover Current	I <sub>BO</sub>		Max 0.5	mA
Holding Current	I <sub>H</sub>		TYP 30	mA
On-state Voltage	V <sub>T</sub>	I <sub>T</sub> = 1A	Max 1.5	V
Switching Resistance	R <sub>S</sub>		Min 0.1	kΩ
Thermal Resistance	θ <sub>jl</sub>	Junction to lead	Max 15	°C/W

### ● Standard Design with P.C.B.

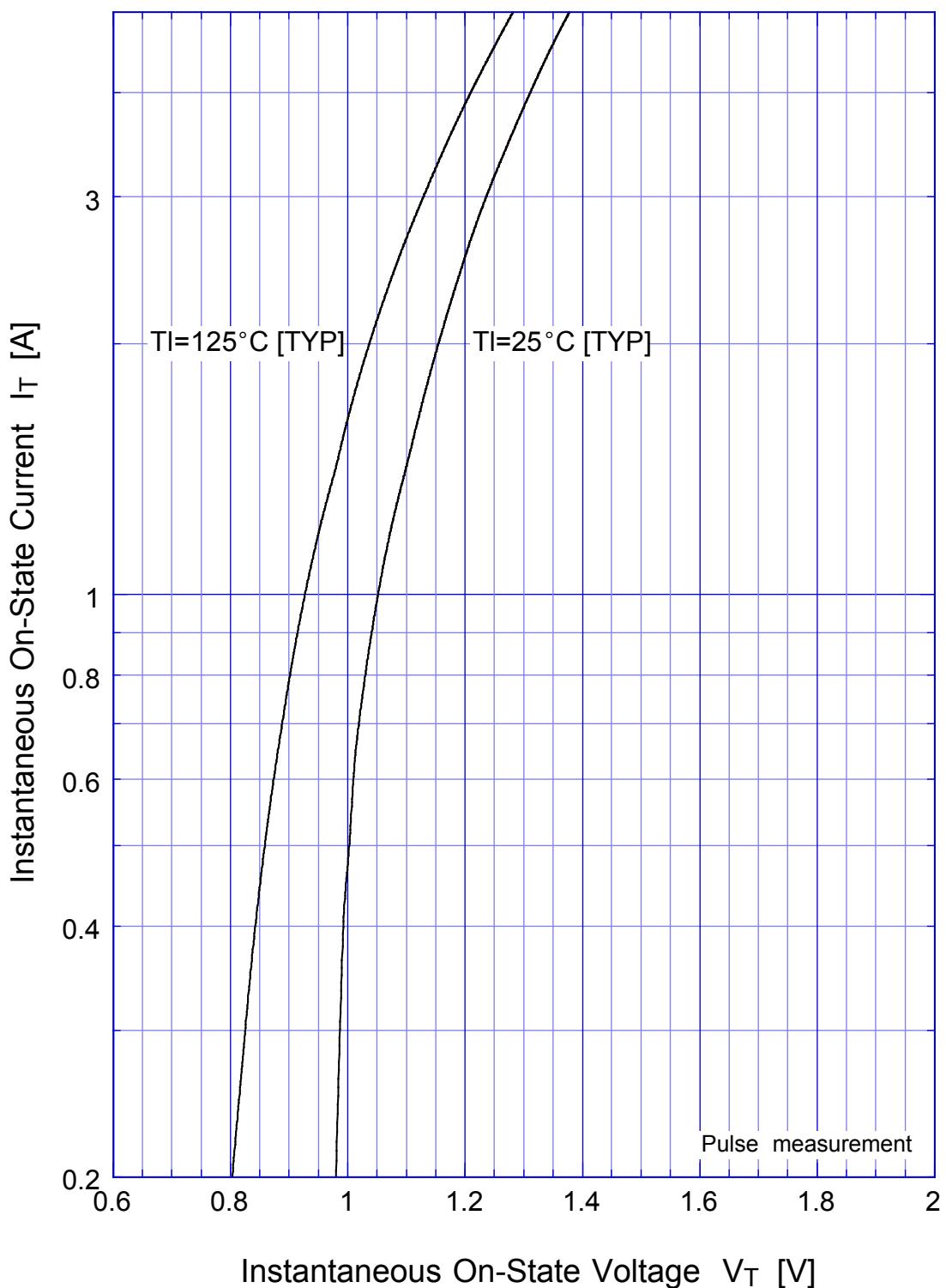
Item	Symbol	Conditions	Standard	Unit
RMS On-state Current	I <sub>T</sub>	Assembled in P.C.B., Ta = 25°C, soldering land 3mm φ	1.04	A



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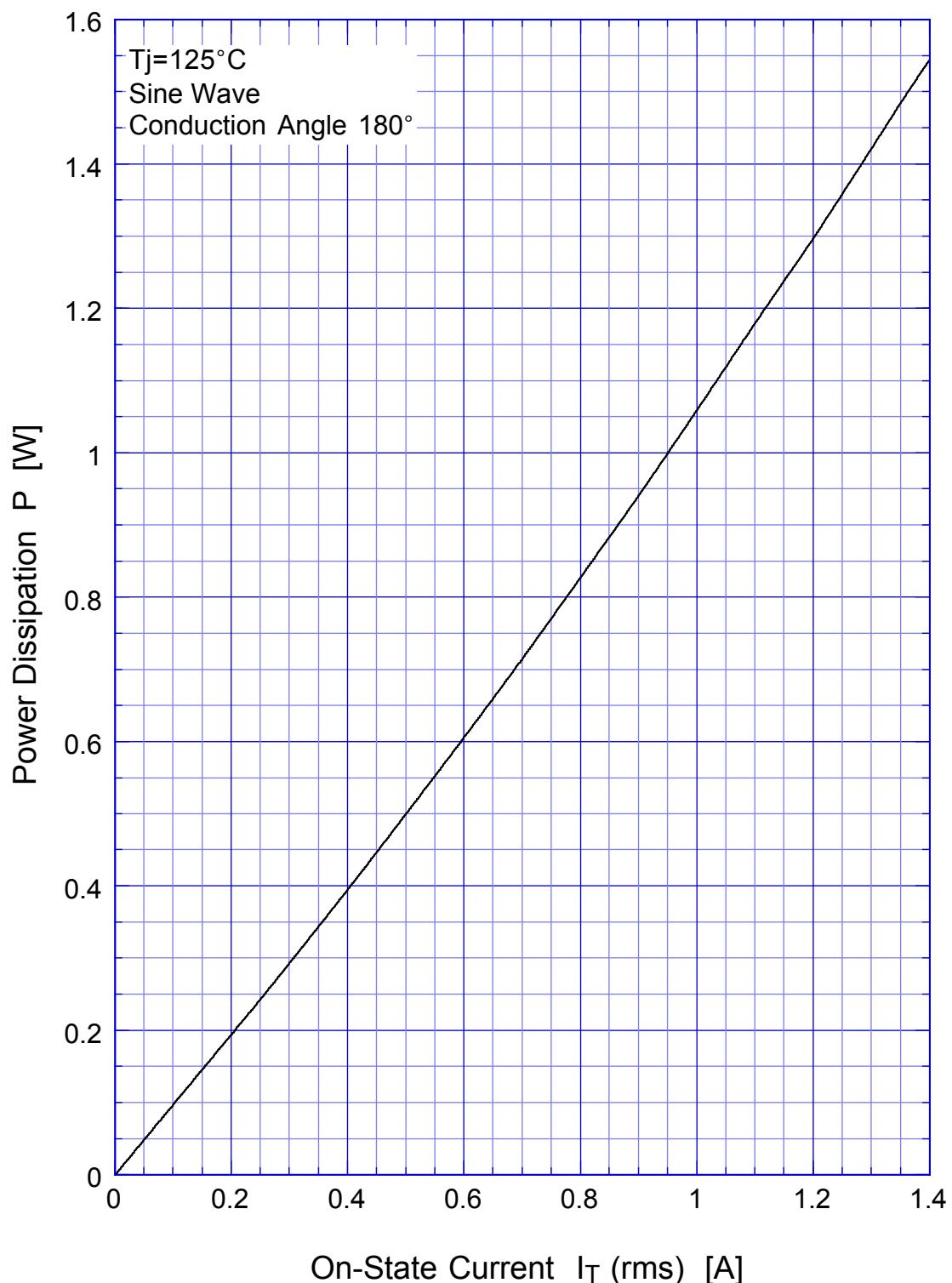
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Typical On-State Voltage



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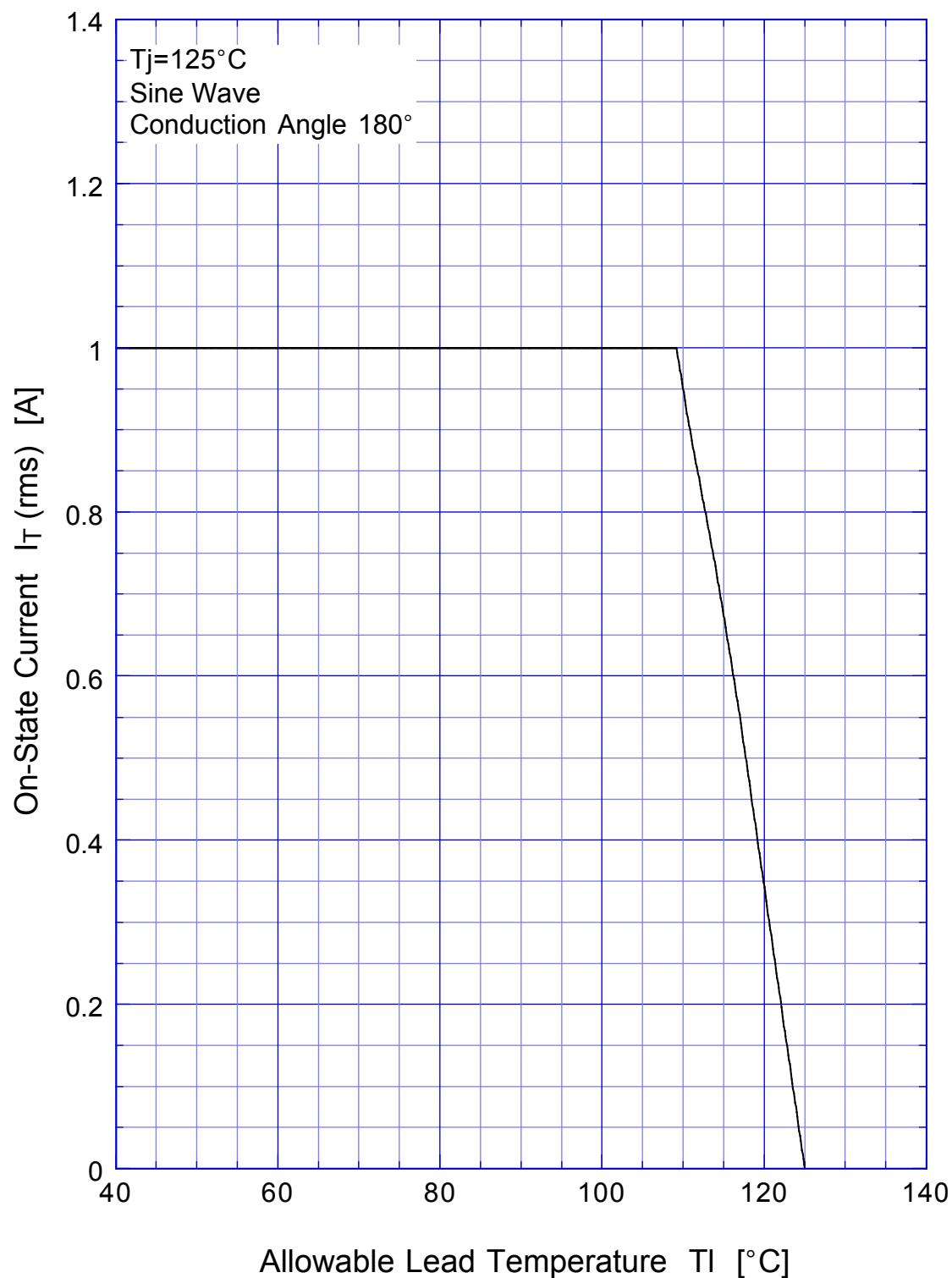
**Power Dissipation**



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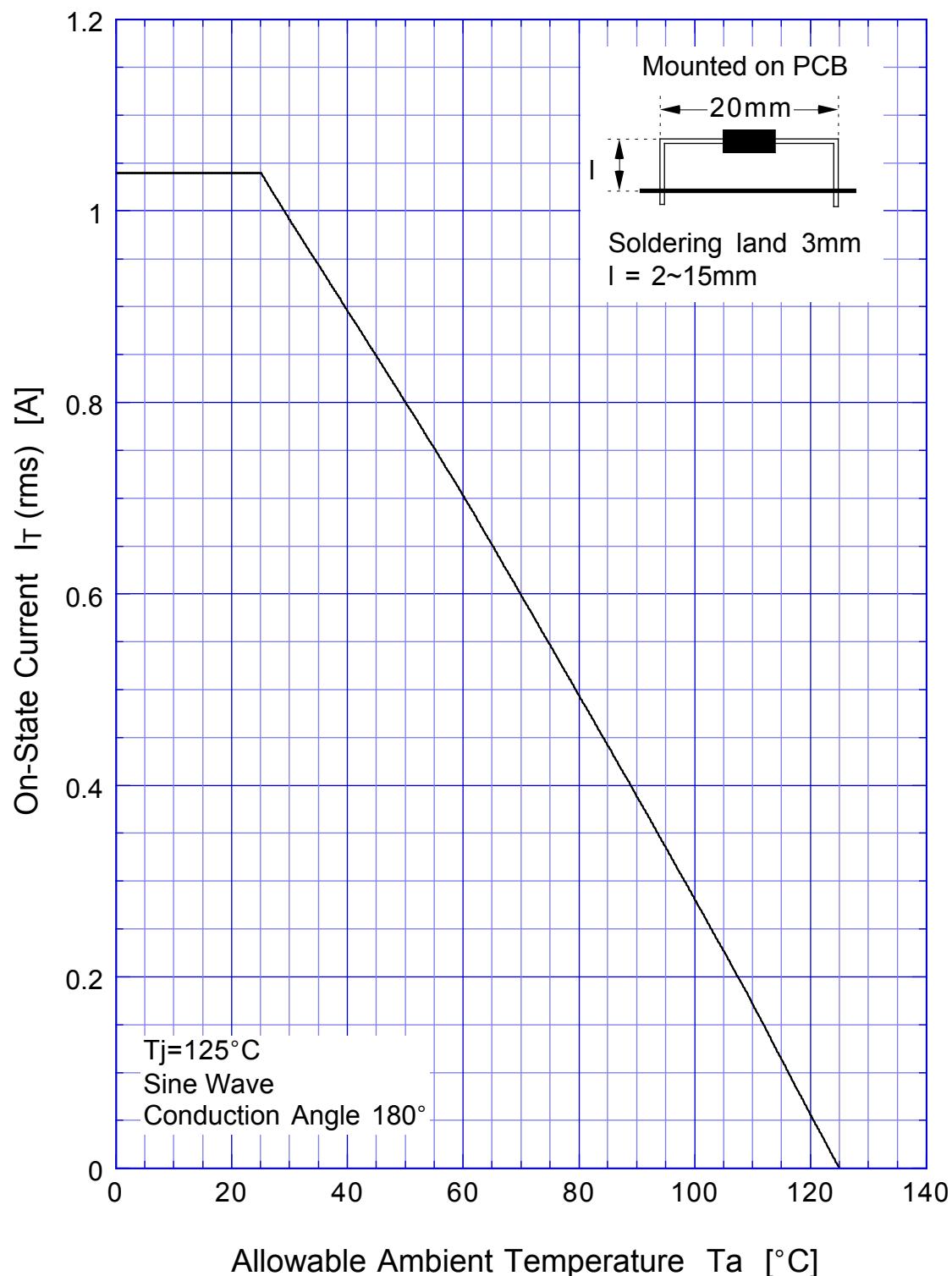
**Maximum Lead Temperature**



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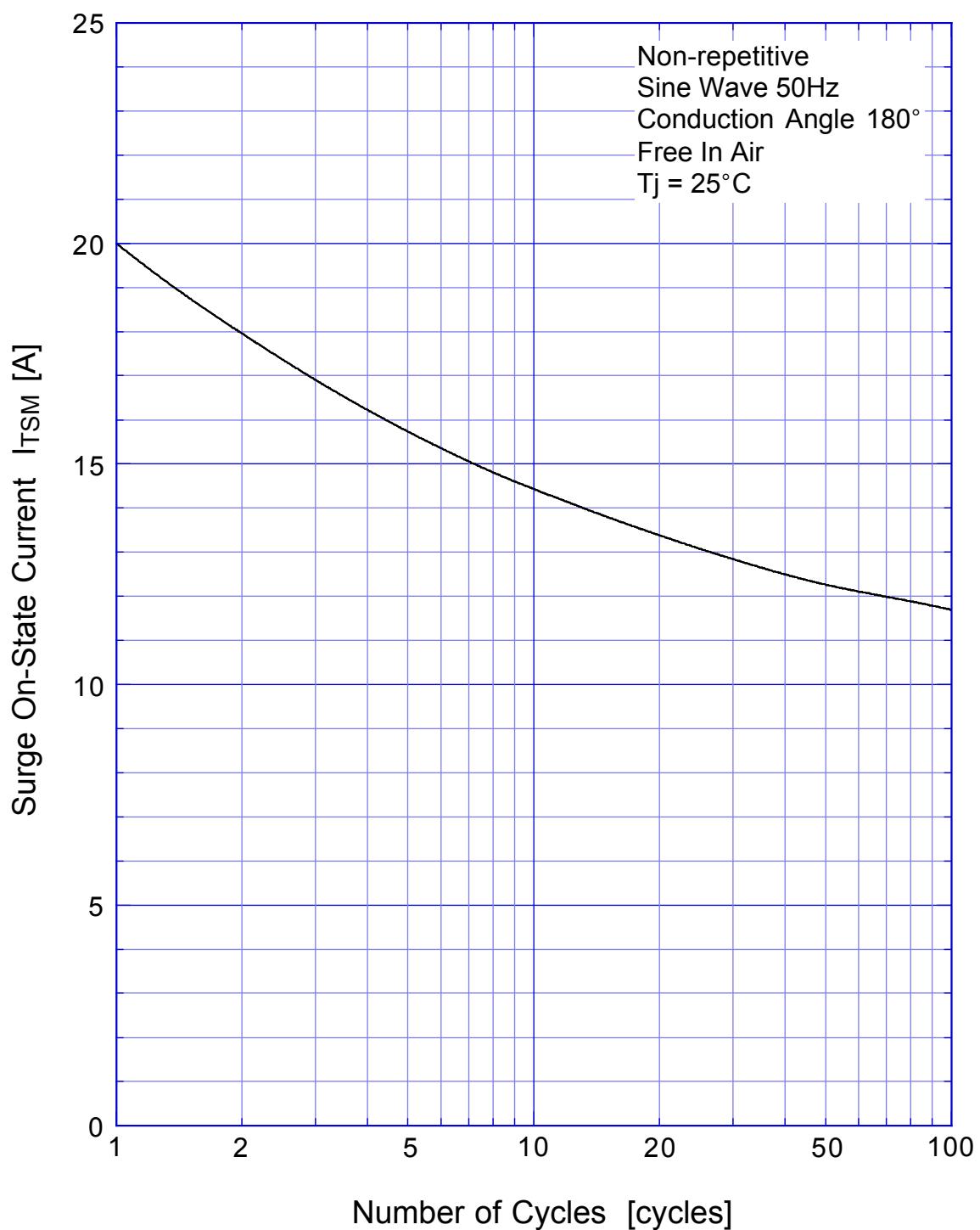
Maximum Ambient Temperature



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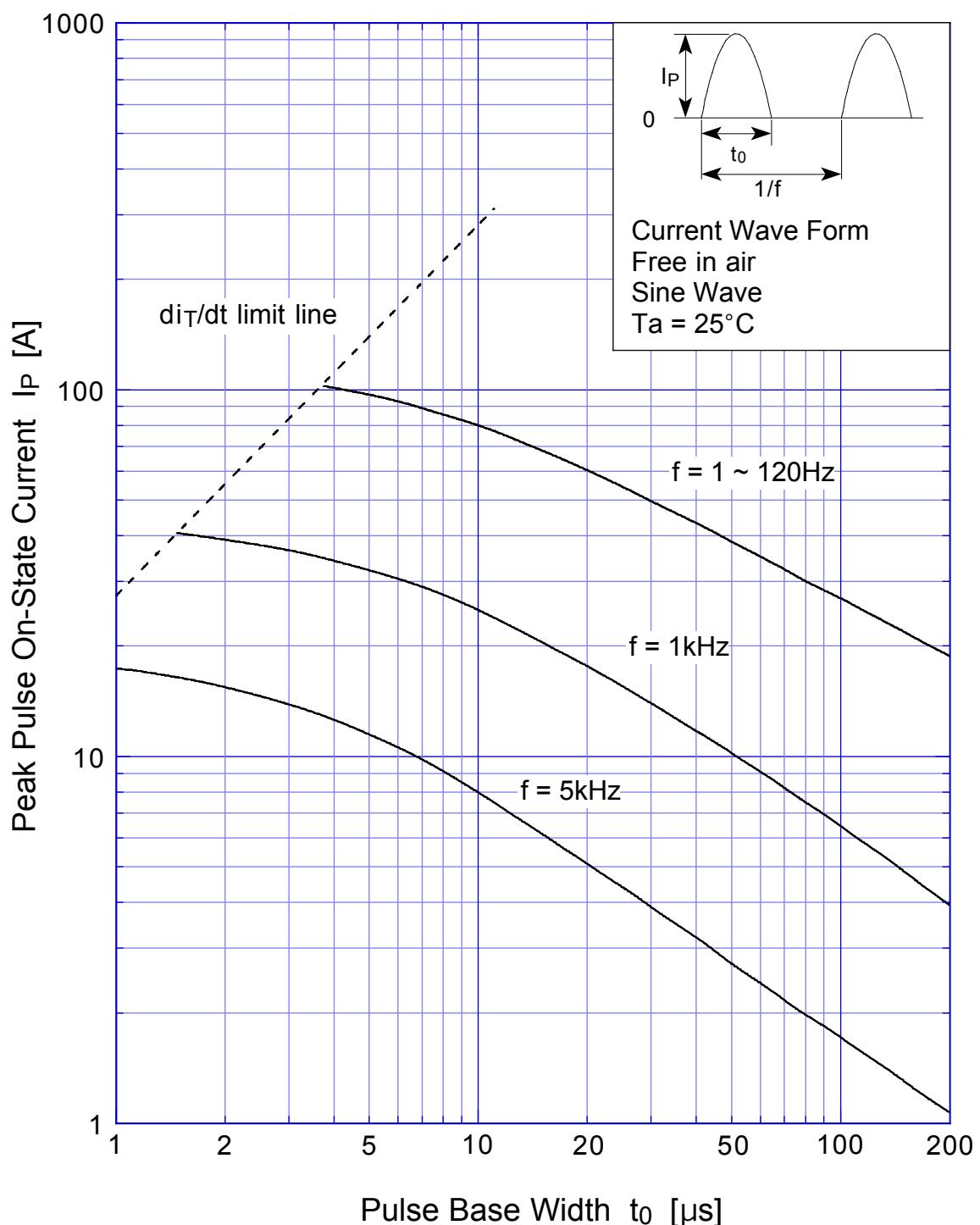
Maximum Surge On-State Current



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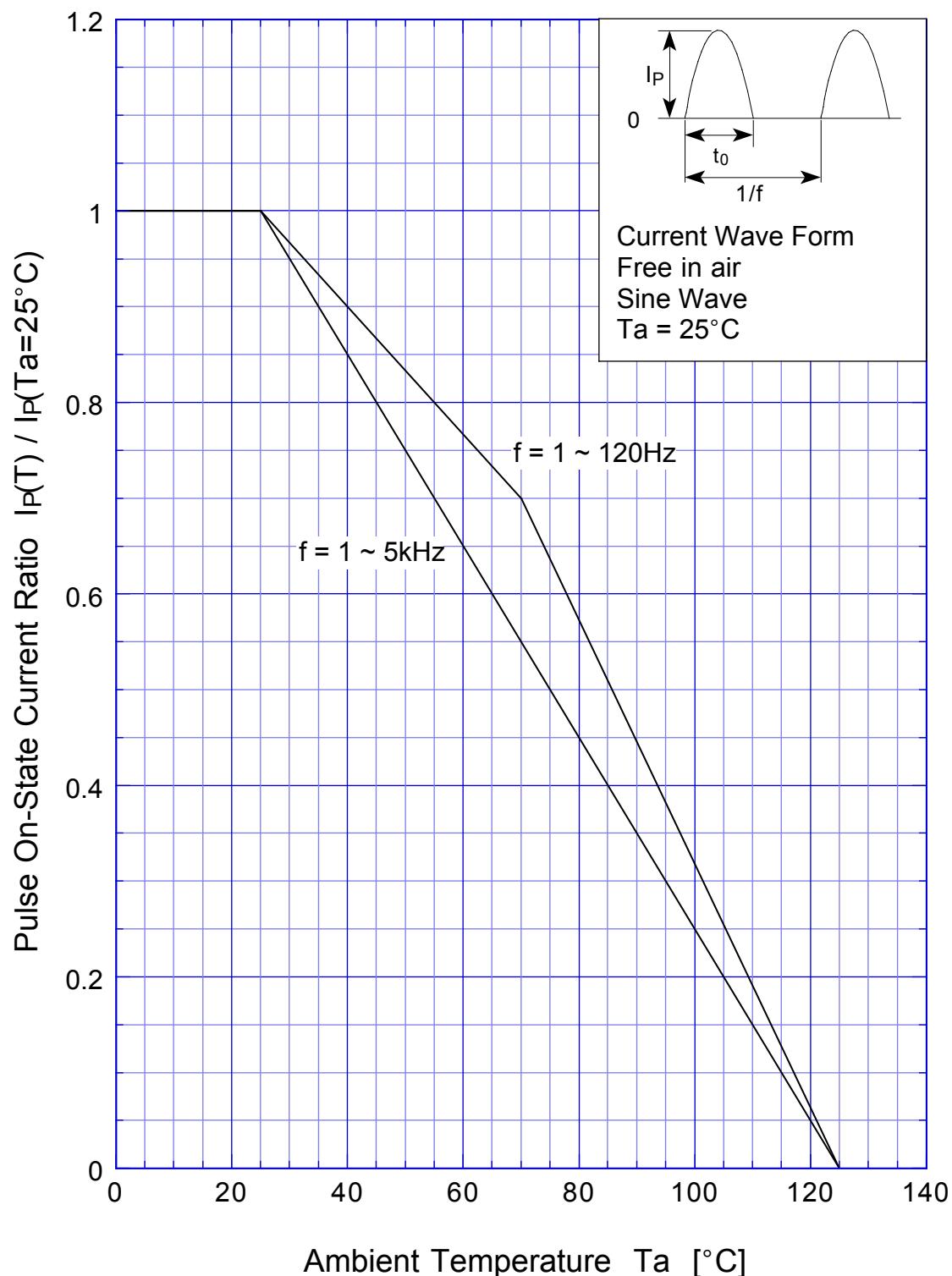
Pulse On-State Current Rating



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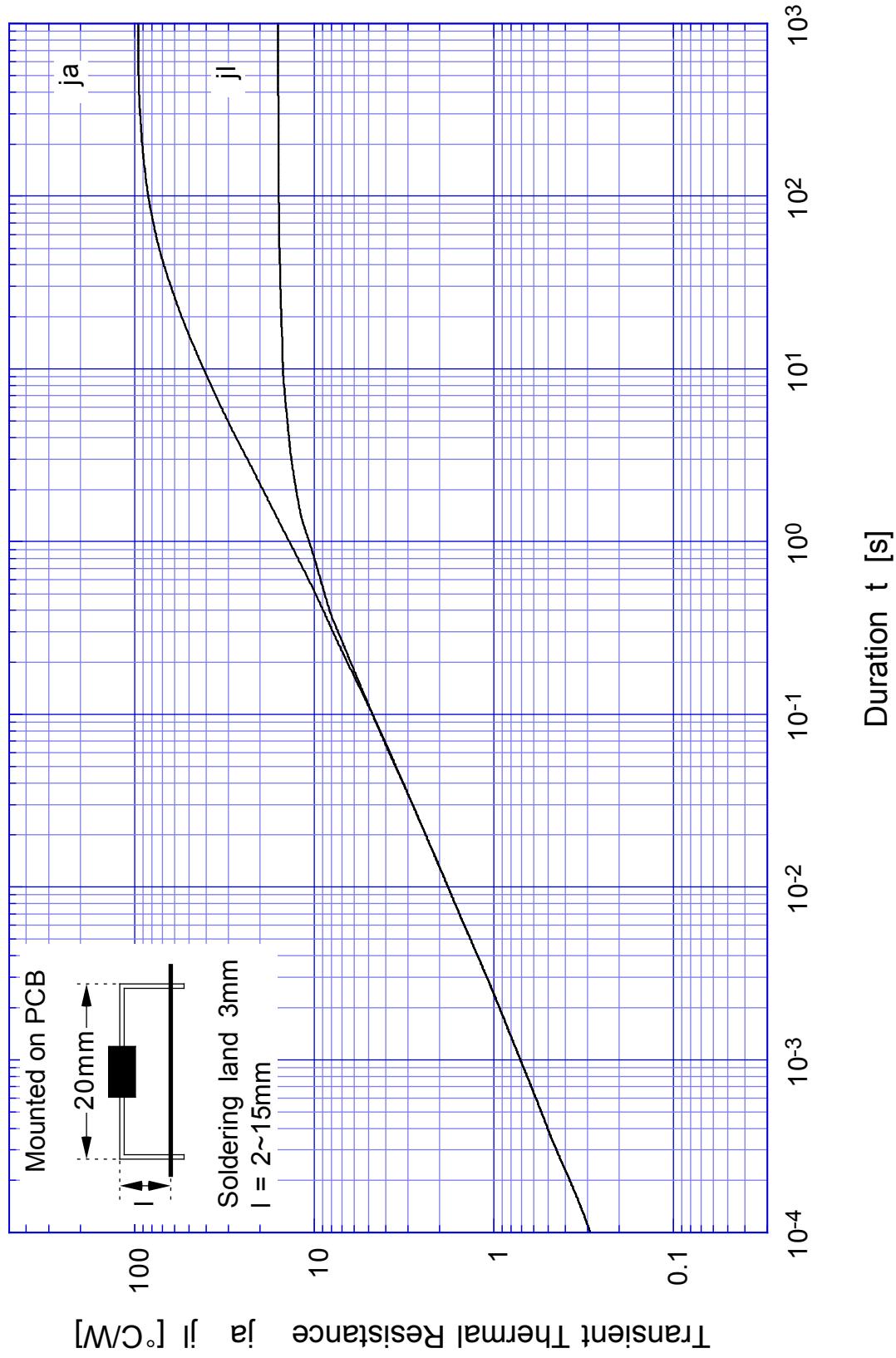
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Pulse On-State Current Derating



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Transient Thermal Resistance



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Breakover Voltage - Junction Temperature

