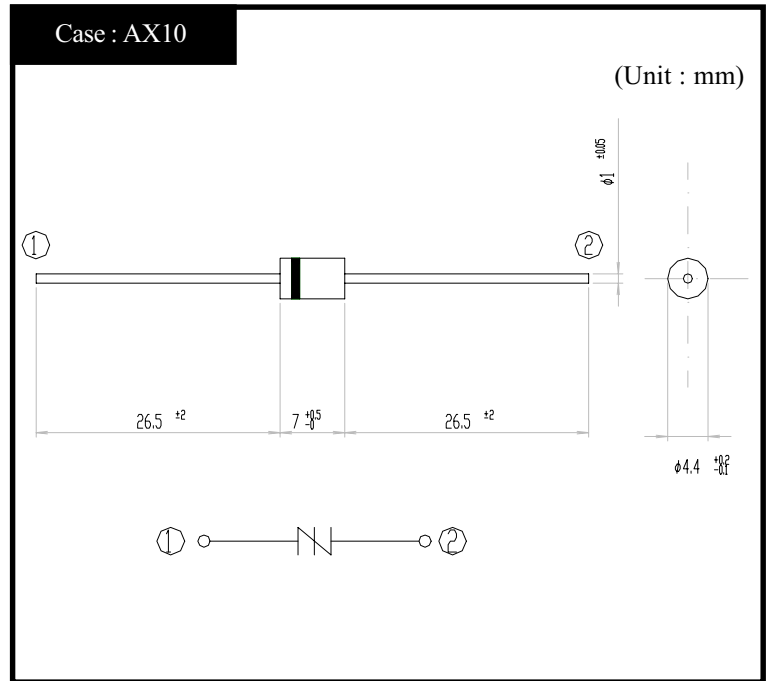


SHINDENGEN

Sidac

K1V12

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-40~125	°C
Operating Junction Temperature	T _j		125	°C
Maximum Off-state Voltage	V _{DRM}		90	V
RMS On-state Current	I _T	T _j = 112°C, 50Hz sine wave (θ = 180°)	1	A
Surge On-state Current	I _{TSM}	T _j = 25°C, 50Hz sine wave (θ = 180°), non-repetitive 1-cycle peak value	20	A
Pulse On-state Current	I _{TRM}	T _a = 25°C, pulse width t _o = 10 μs, sine wave, repetitive peak value f = 1 kHz	25	A
		T _a = 25°C, pulse width t _o = 10 μs, sine wave, repetitive peak value f = 60 Hz	80	
Critical Rate of Rise of On-state Current	di _T /dt		80	A/μs

● Electrical Characteristics (T_j=25°C)

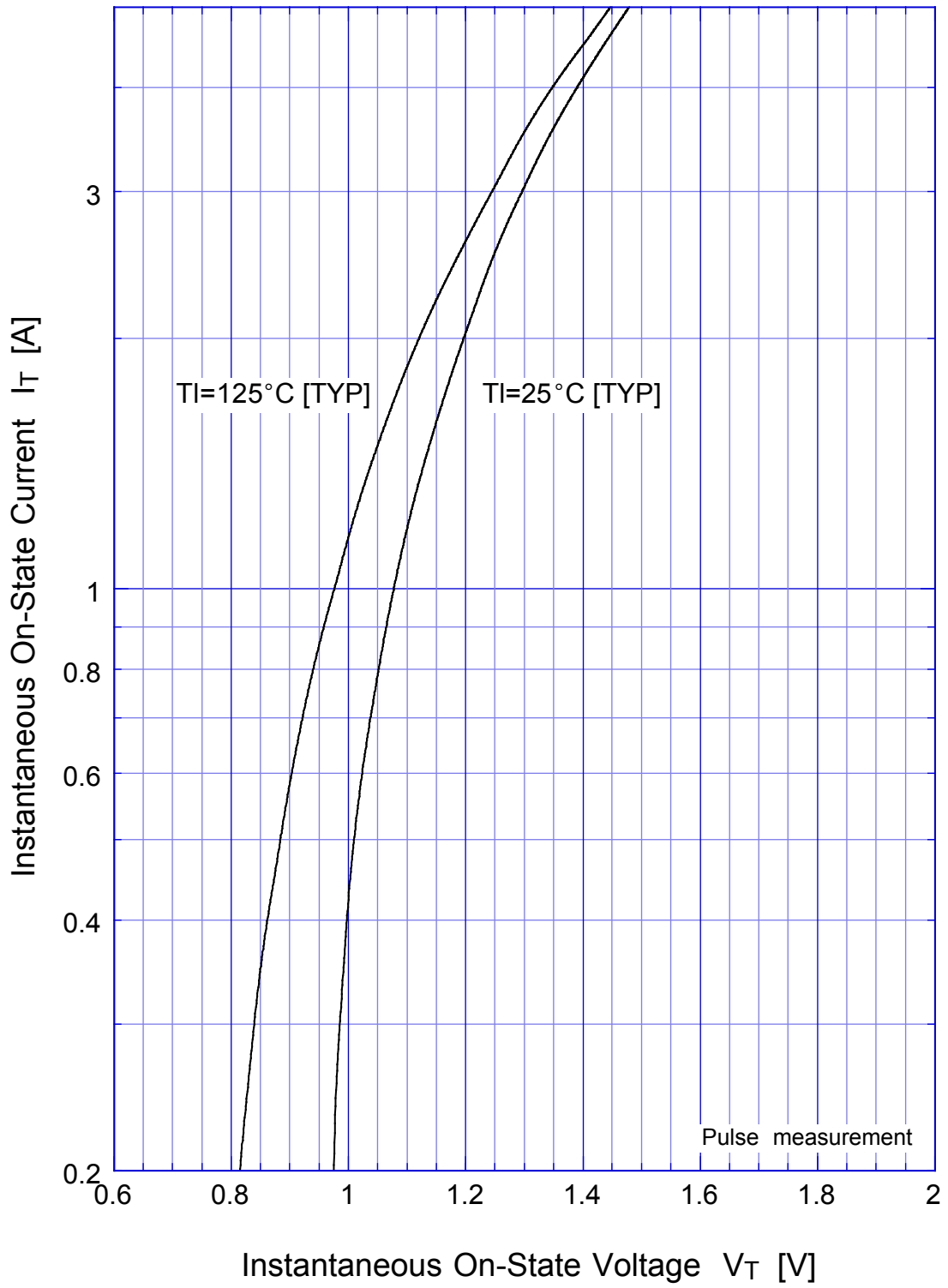
Item	Symbol	Conditions	Ratings	Unit
Breakover Voltage	V _{BO}	I _B = 0, 50Hz sine wave	110~125	V
Off-state Current	I _{DRM}	V _D = V _{DRM}	Max 10	μA
Breakover Current	I _{BO}		Max 0.5	mA
Holding Current	I _H		TYP 50	mA
On-state Voltage	V _T	I _T = 1A	Max 1.5	V
Switching Resistance	R _S		Min 0.1	kΩ
Thermal Resistance	θ _{jl}	Junction to lead	Max 15	°C/W

● Standard Design with P.C.B.

Item	Symbol	Conditions	Standard	Unit
RMS On-state Current	I _T	Assembled in P.C.B., T _a = 25°C, soldering land 3mm φ	1.2	A

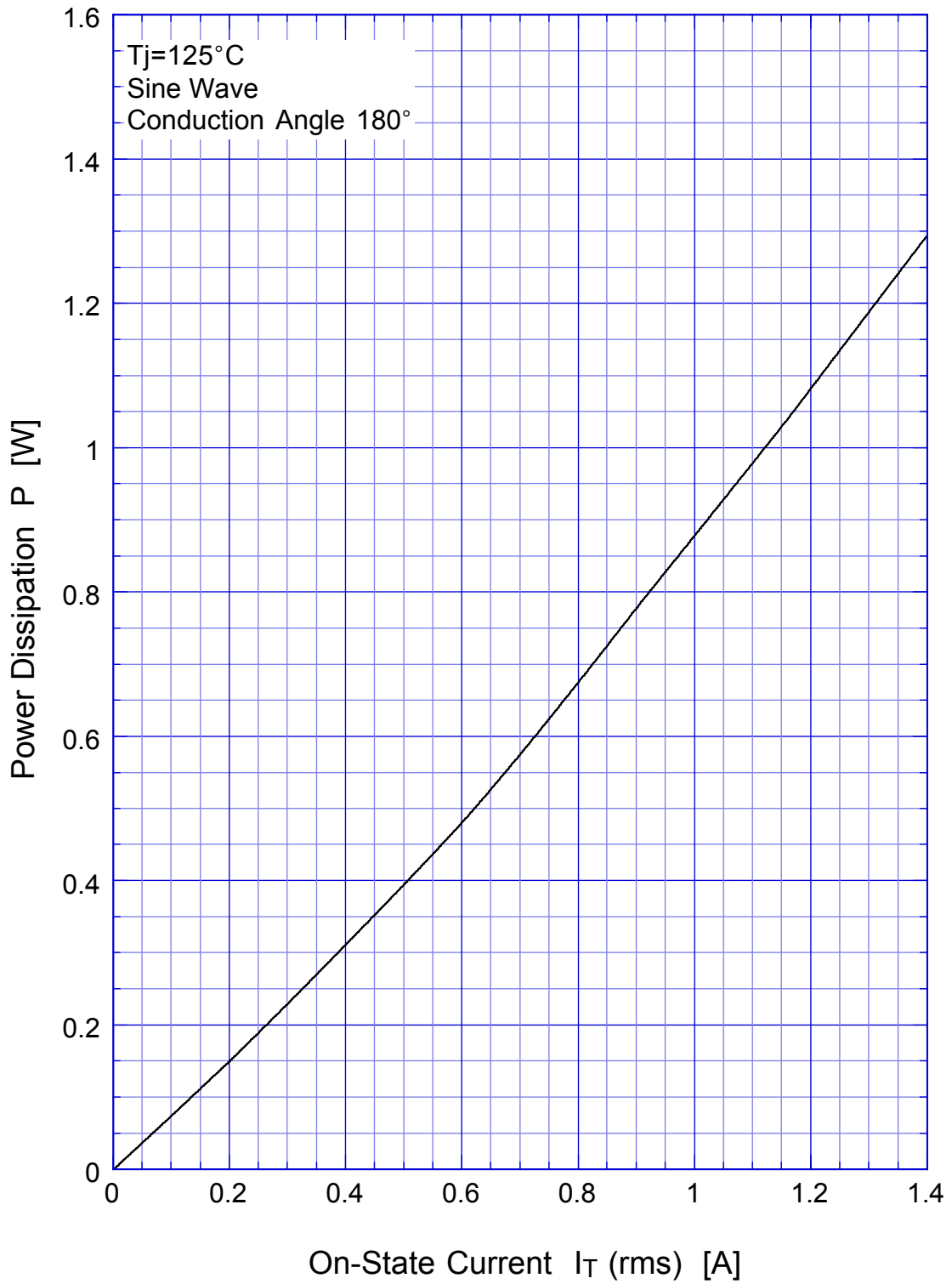
K1V10
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K1V12

Typical On-State Voltage



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Power Dissipation

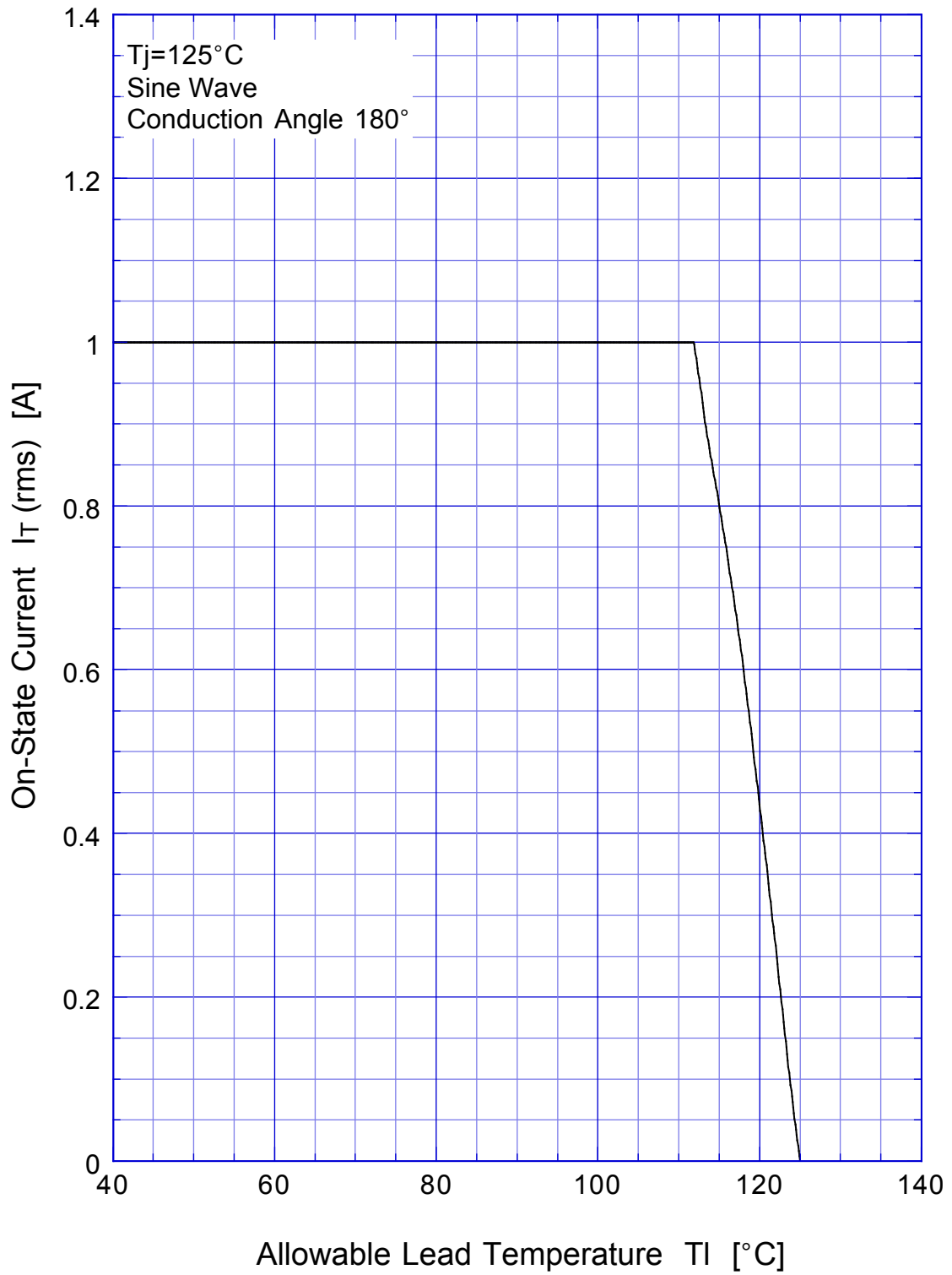


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Maximum Lead Temperature

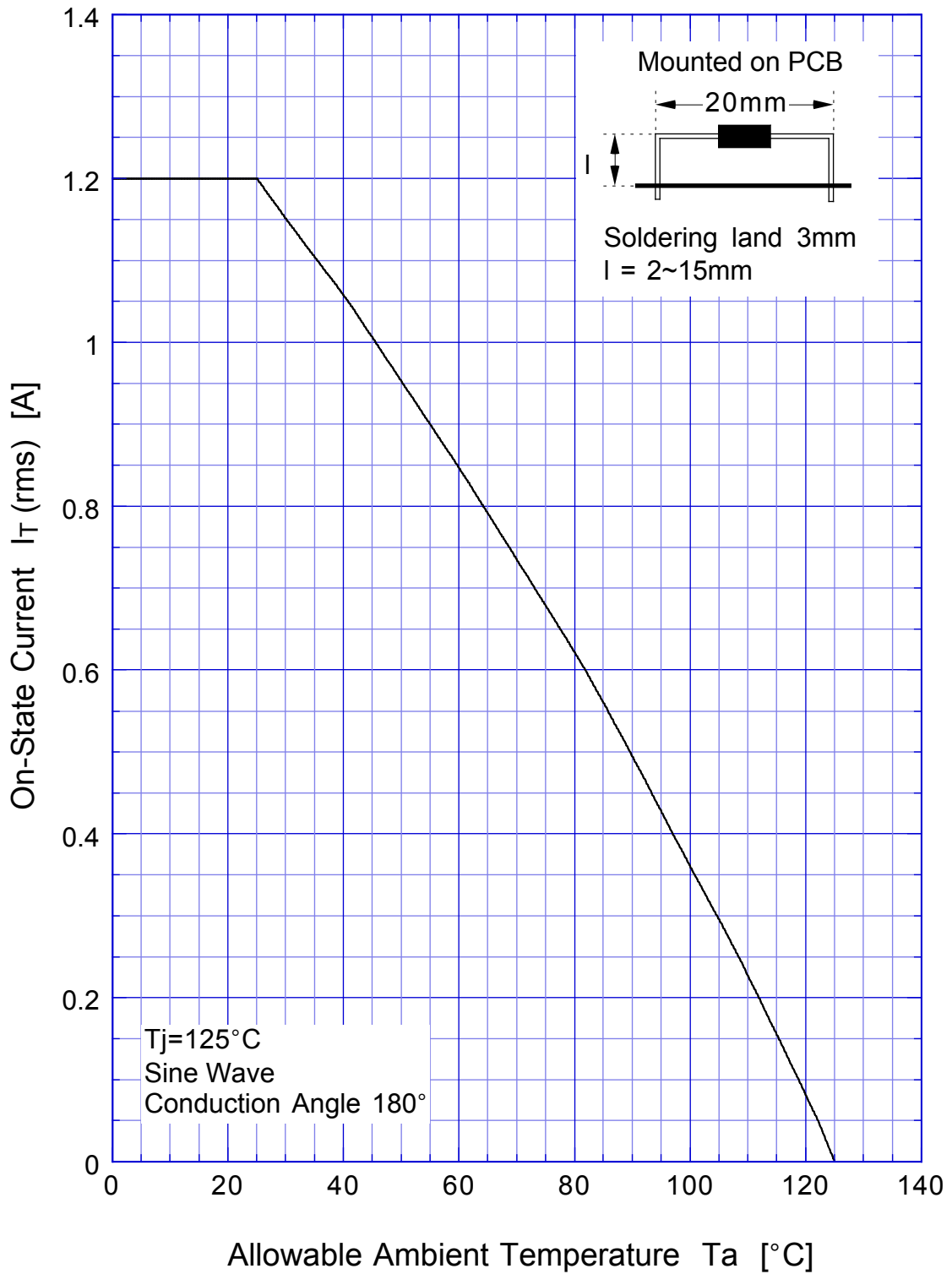


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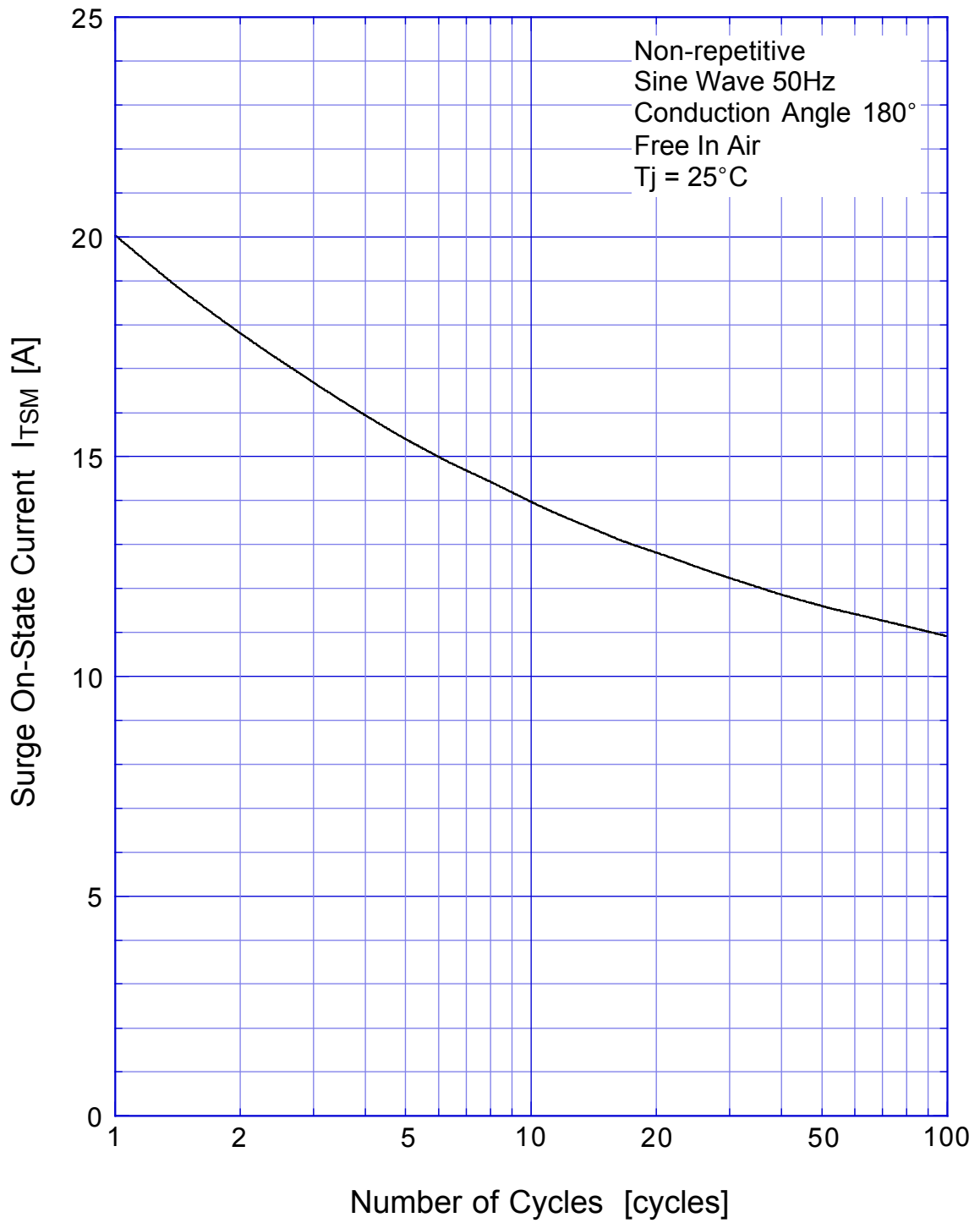
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Maximum Ambient Temperature



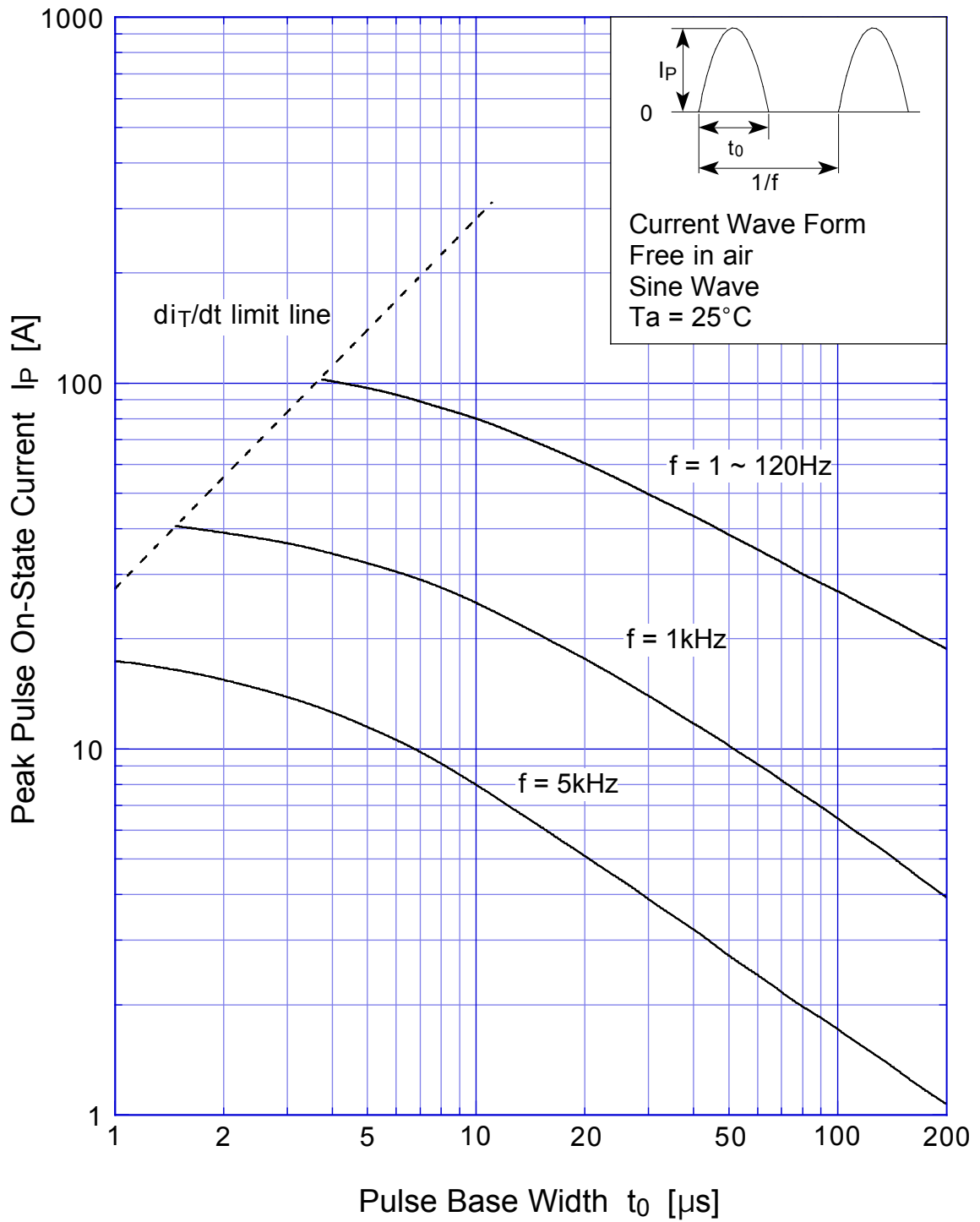
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Maximum Surge On-State Current



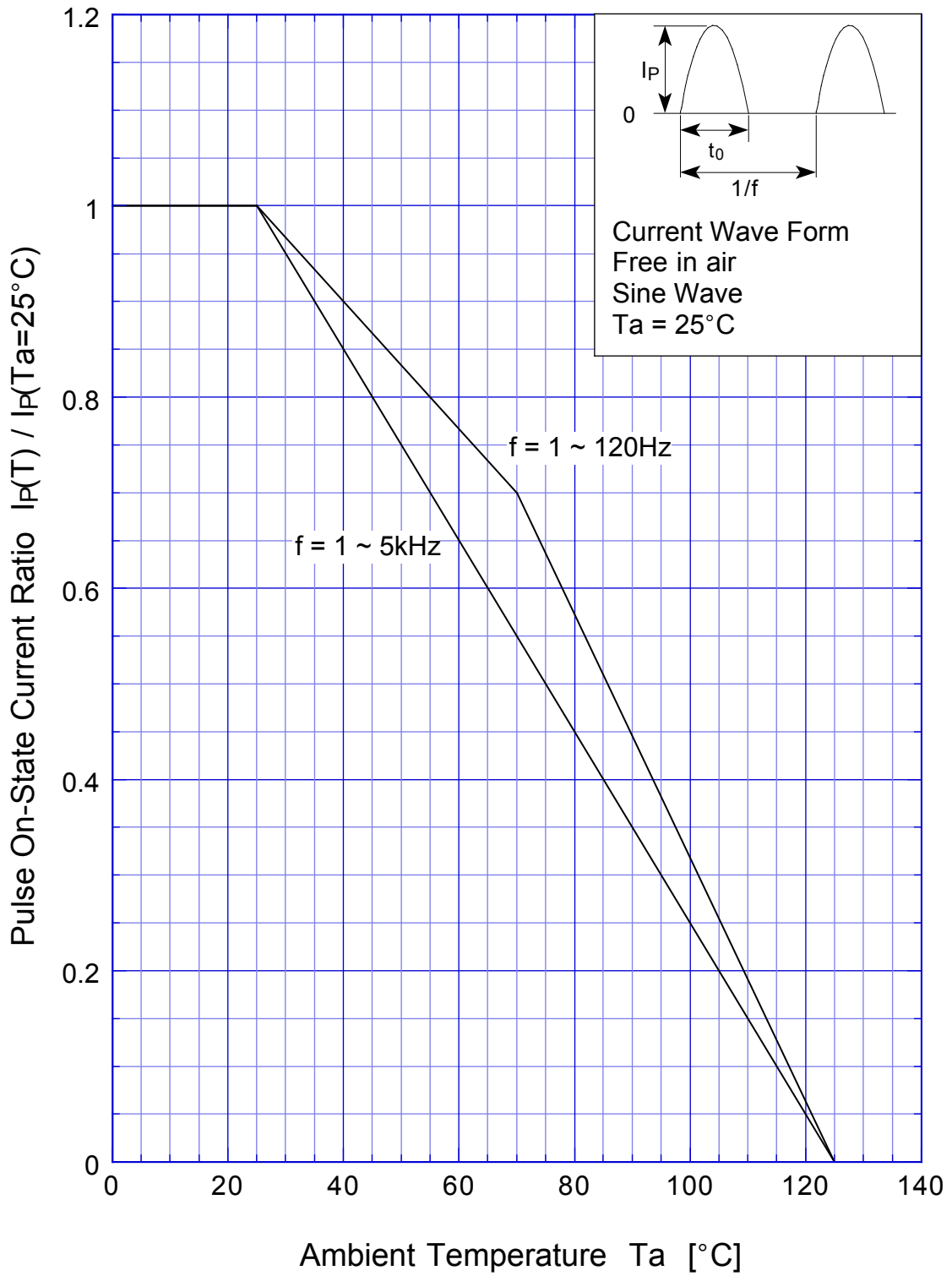
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Pulse On-State Current Rating



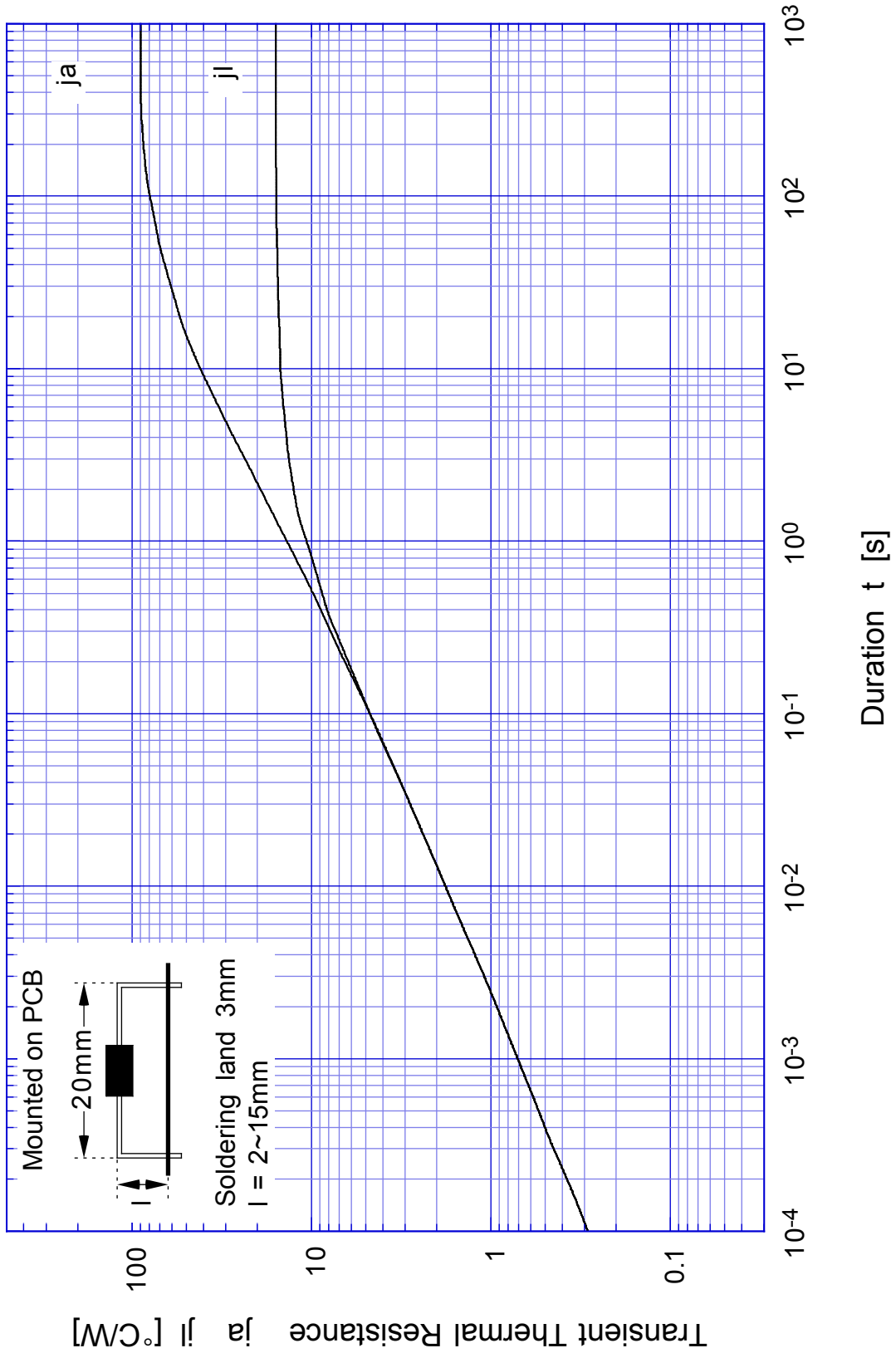
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K1V12

Pulse On-State Current Derating



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K1V11
K1V12

Transient Thermal Resistance



K1V10
K1V11
K1V12

Breakover Voltage - Junction Temperature

