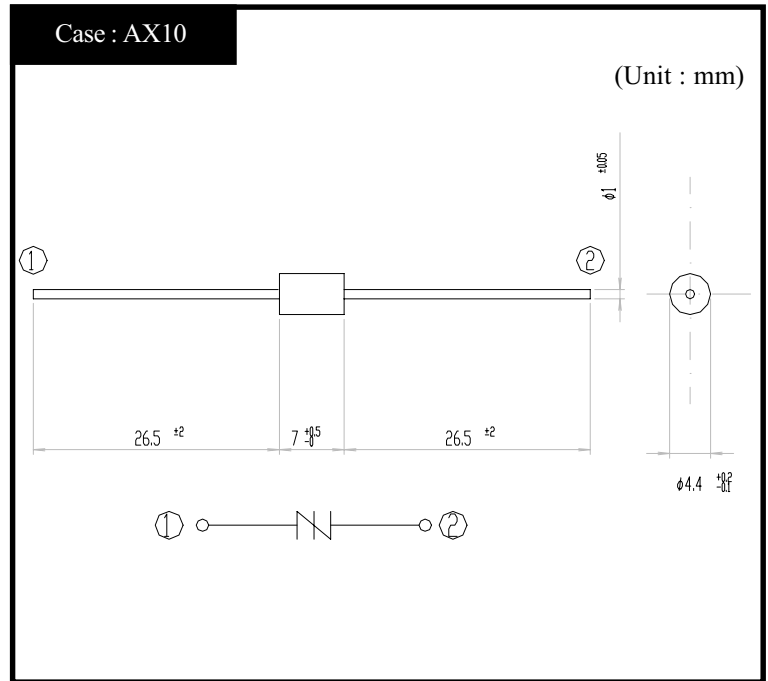


SHINDENGEN

Sidac

K1V22(W)

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} | | 180 | V |
| RMS On-state Current | I_T | $T_I = 91^\circ\text{C}$, 50Hz sine wave ($\theta = 180^\circ$) | 1 | A |
| Surge On-state Current | I_{TSM} | $T_j = 25^\circ\text{C}$, 50Hz sine wave ($\theta = 180^\circ$), non-repetitive 1-cycle peak value | 16 | A |
| Pulse On-state Current | I_{TRM} | $T_a = 25^\circ\text{C}$, pulse width $t_o = 10 \mu\text{s}$, sine wave, repetitive peak value $f = 1 \text{ kHz}$ | 17 | A |
| | | $T_a = 25^\circ\text{C}$, pulse width $t_o = 10 \mu\text{s}$, sine wave, repetitive peak value $f = 60 \text{ Hz}$ | 50 | |
| Critical Rate of Rise of On-state Current | di_T/dt | | 80 | A/ μs |

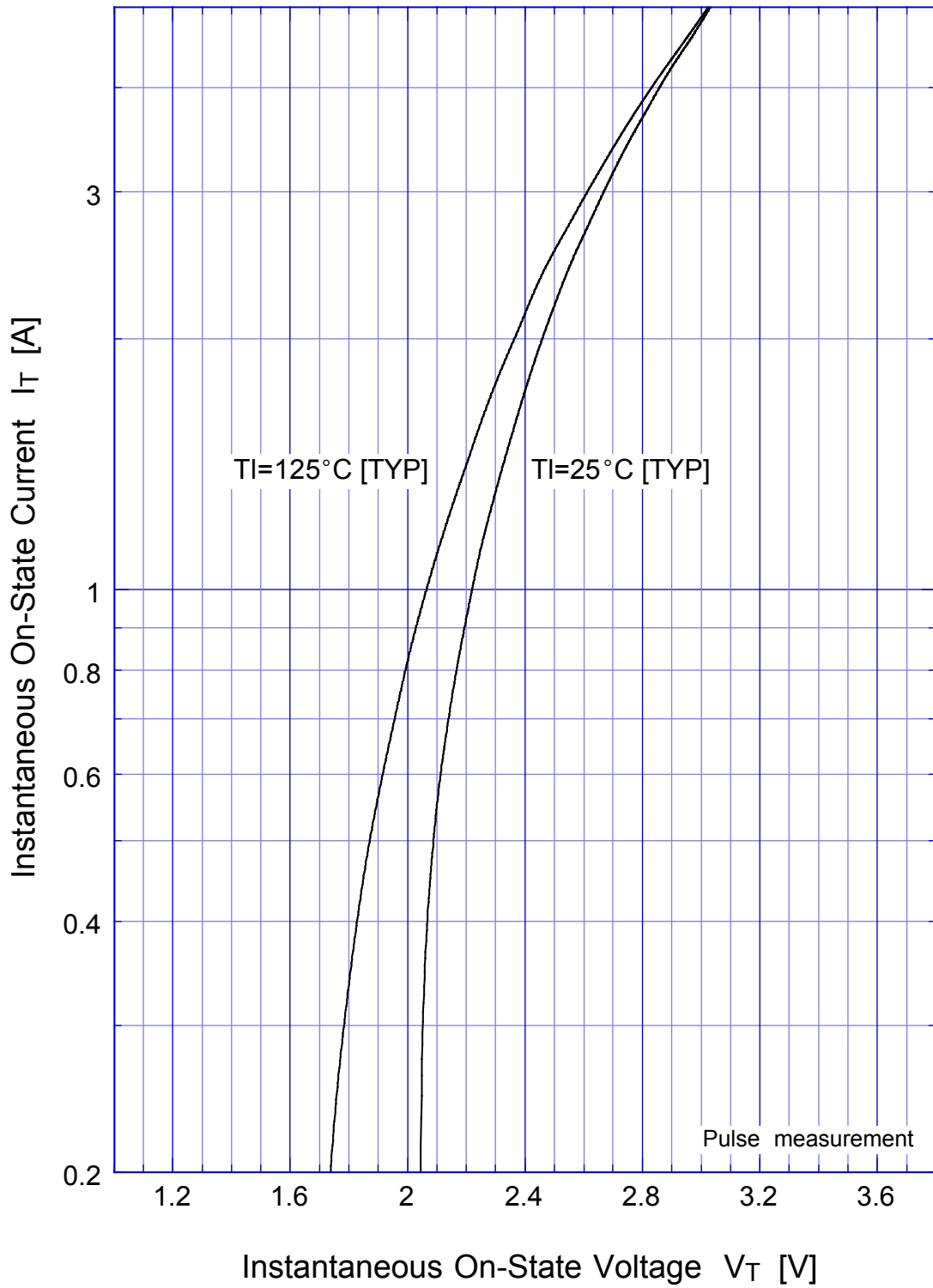
● Electrical Characteristics ($T_I=25^\circ\text{C}$)

| Item | Symbol | Conditions | Ratings | Unit |
|----------------------|---------------|----------------------------|---------|---------------|
| Breakover Voltage | V_{BO} | $I_B = 0$, 50Hz sine wave | 200~230 | 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 | $I_T = 1\text{A}$ | Max 3.0 | V |
| Switching Resistance | R_S | | Min 0.1 | k Ω |
| 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., $T_a = 25^\circ\text{C}$, soldering land 3mm ϕ | 0.55 | A |

K1V22(W)
K1V24(W)
K1V26(W) Typical On-State Voltage

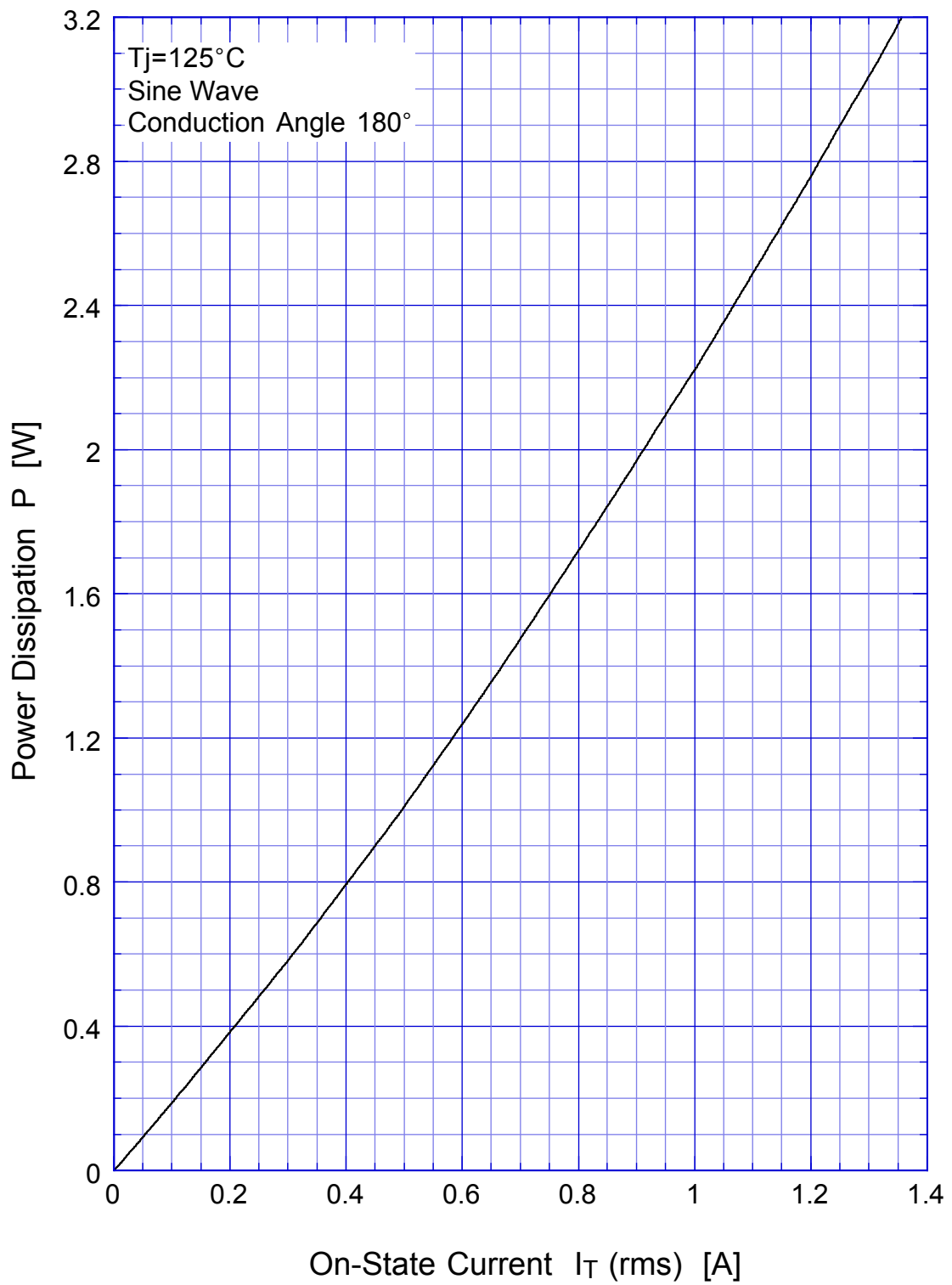


K1V22(W)

K1V24(W)

K1V26(W)

Power Dissipation

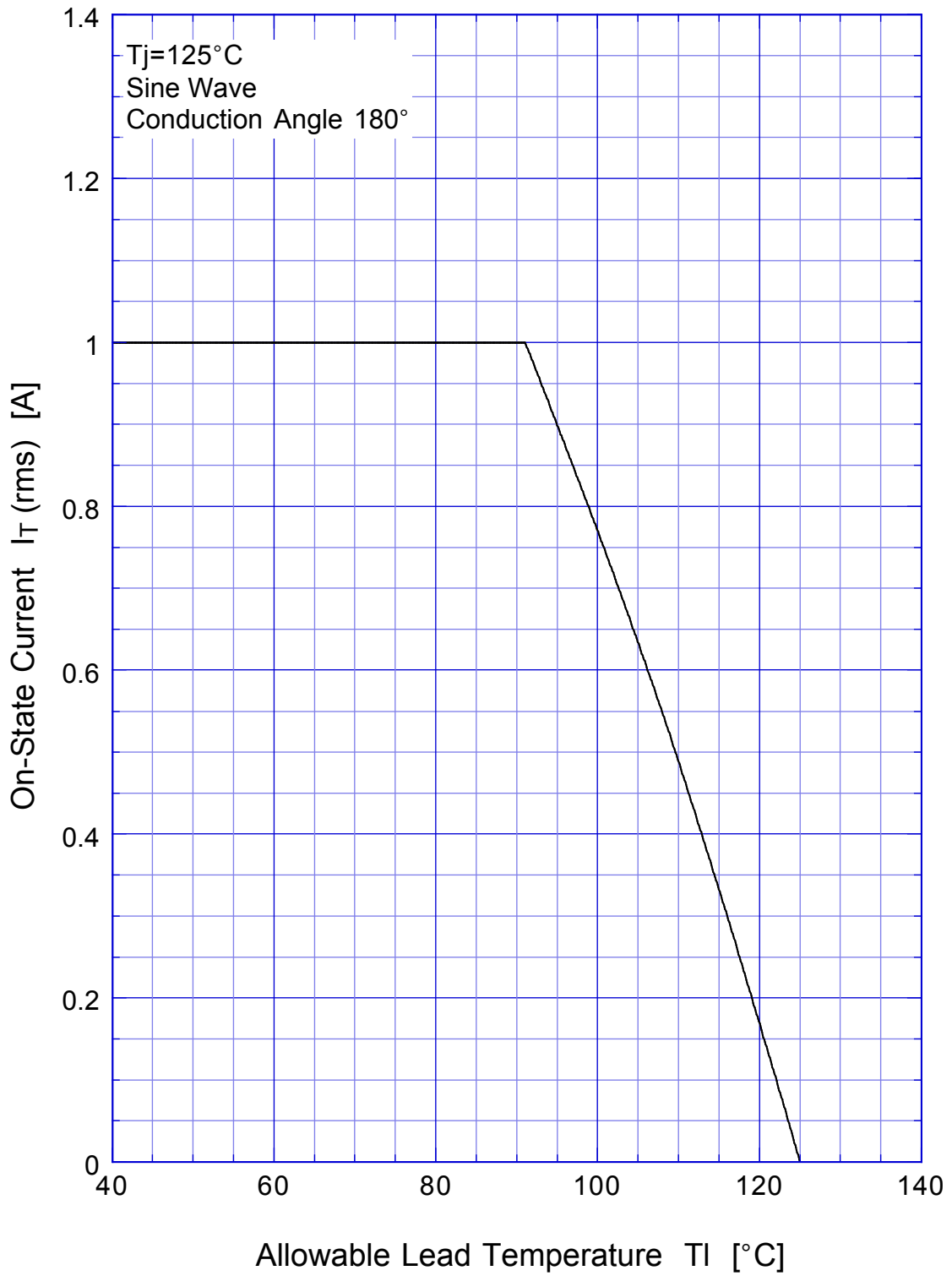


K1V22(W)

K1V24(W)

K1V26(W)

Maximum Lead Temperature

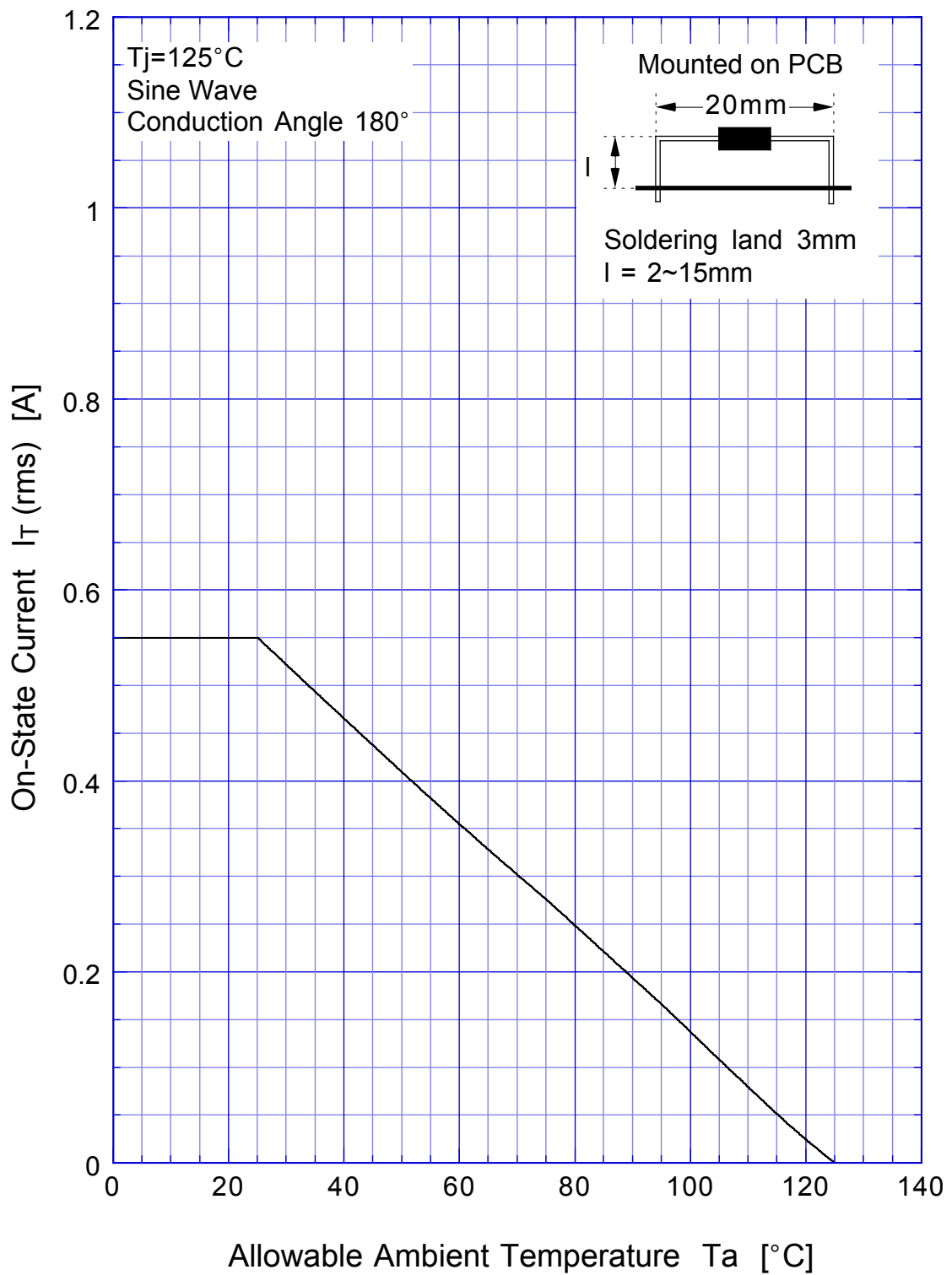


K1V22(W)

K1V24(W)

K1V26(W)

Maximum Ambient Temperature

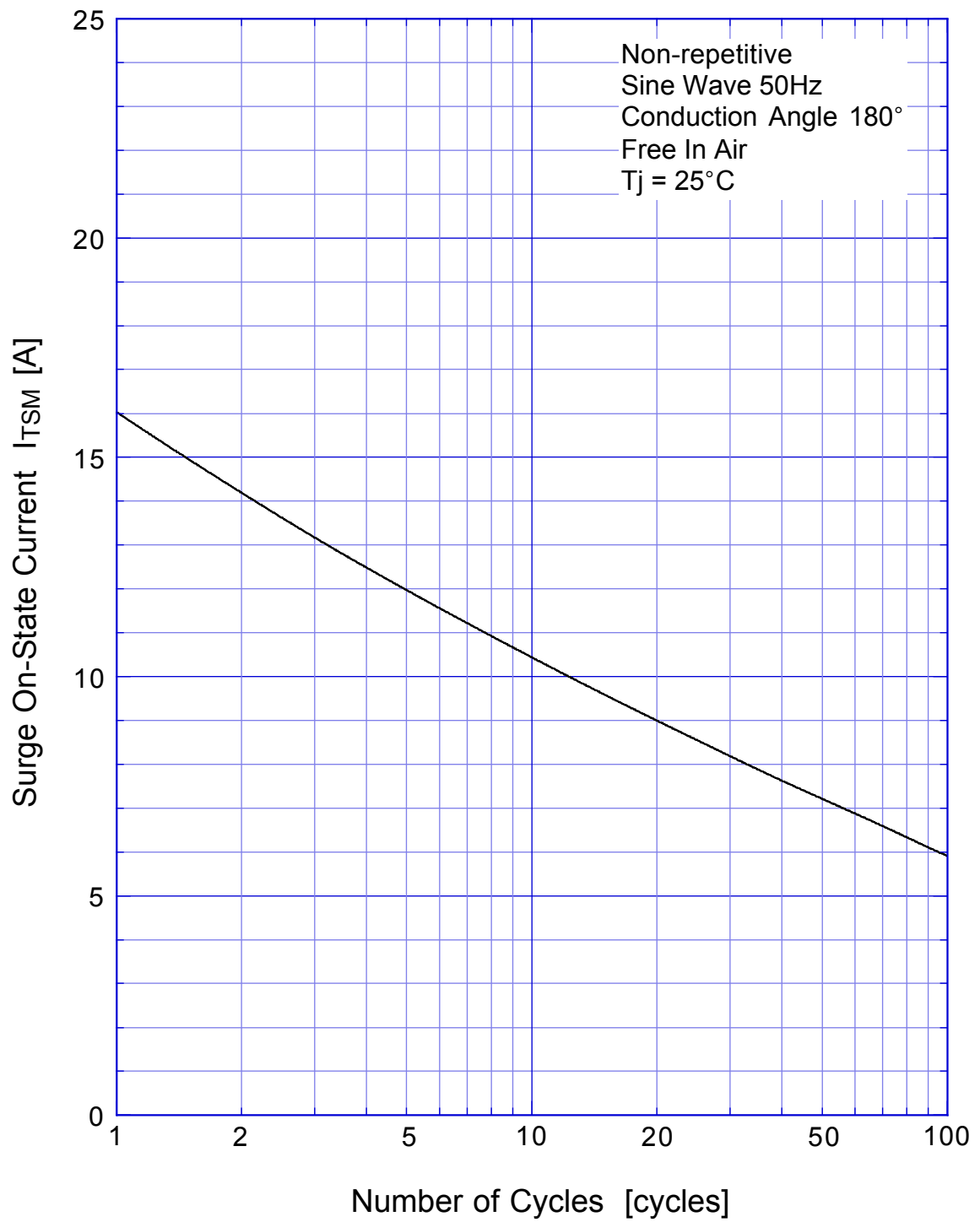


K1V22(W)

K1V24(W)

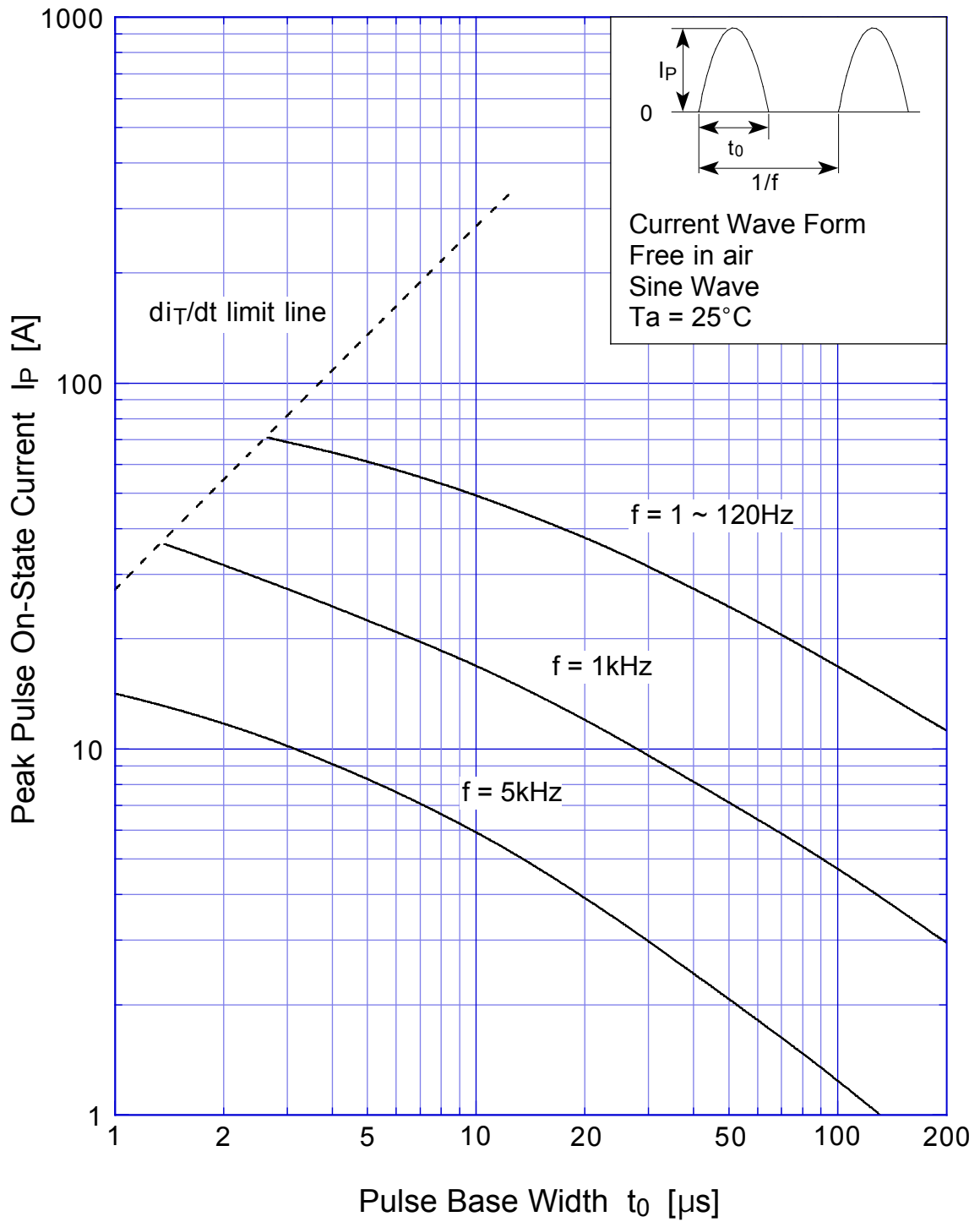
K1V26(W)

Maximum Surge On-State Current



K1V22(W)
K1V24(W)
K1V26(W)

Pulse On-State Current Rating

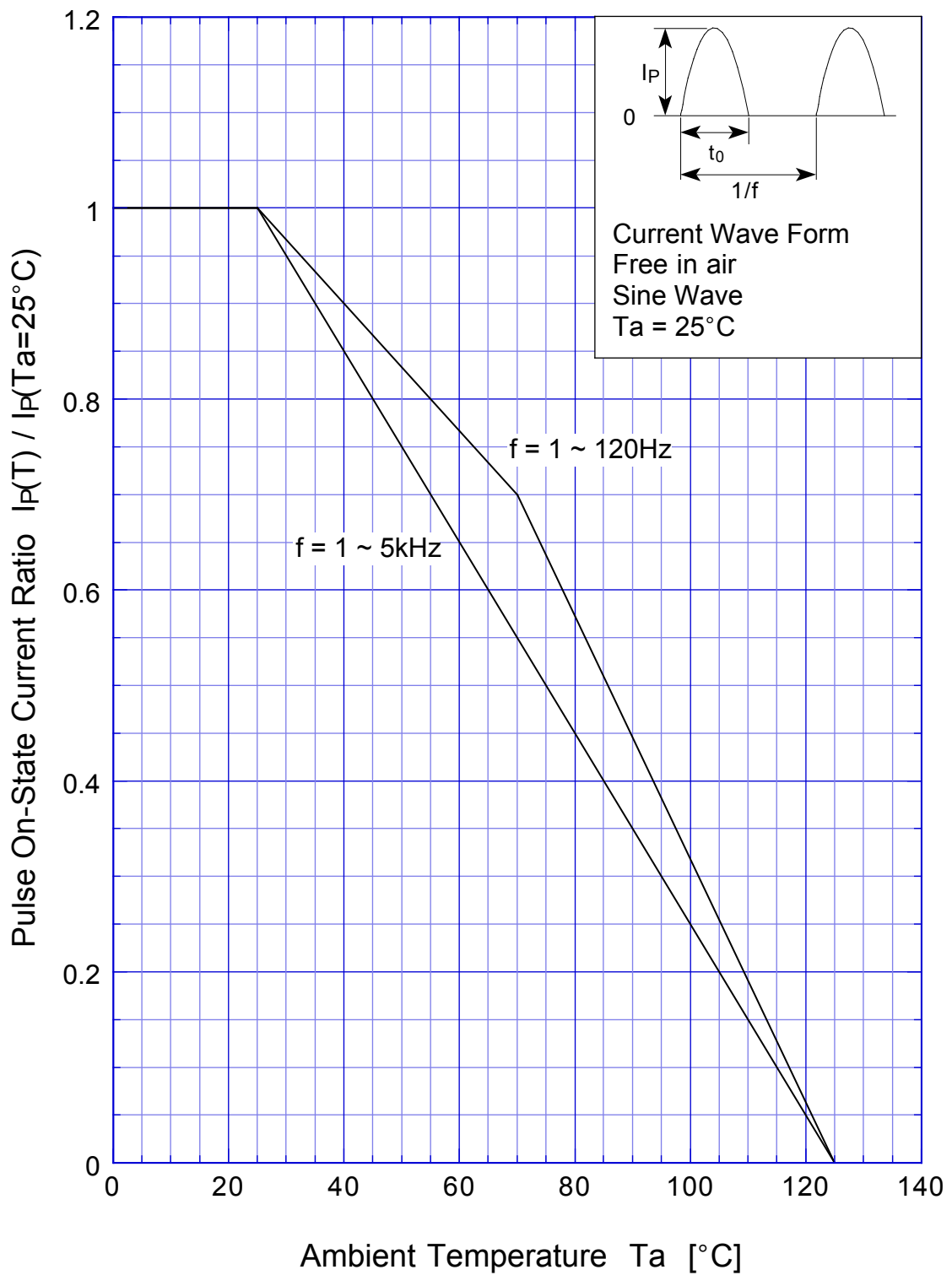


K1V22(W)

K1V24(W)

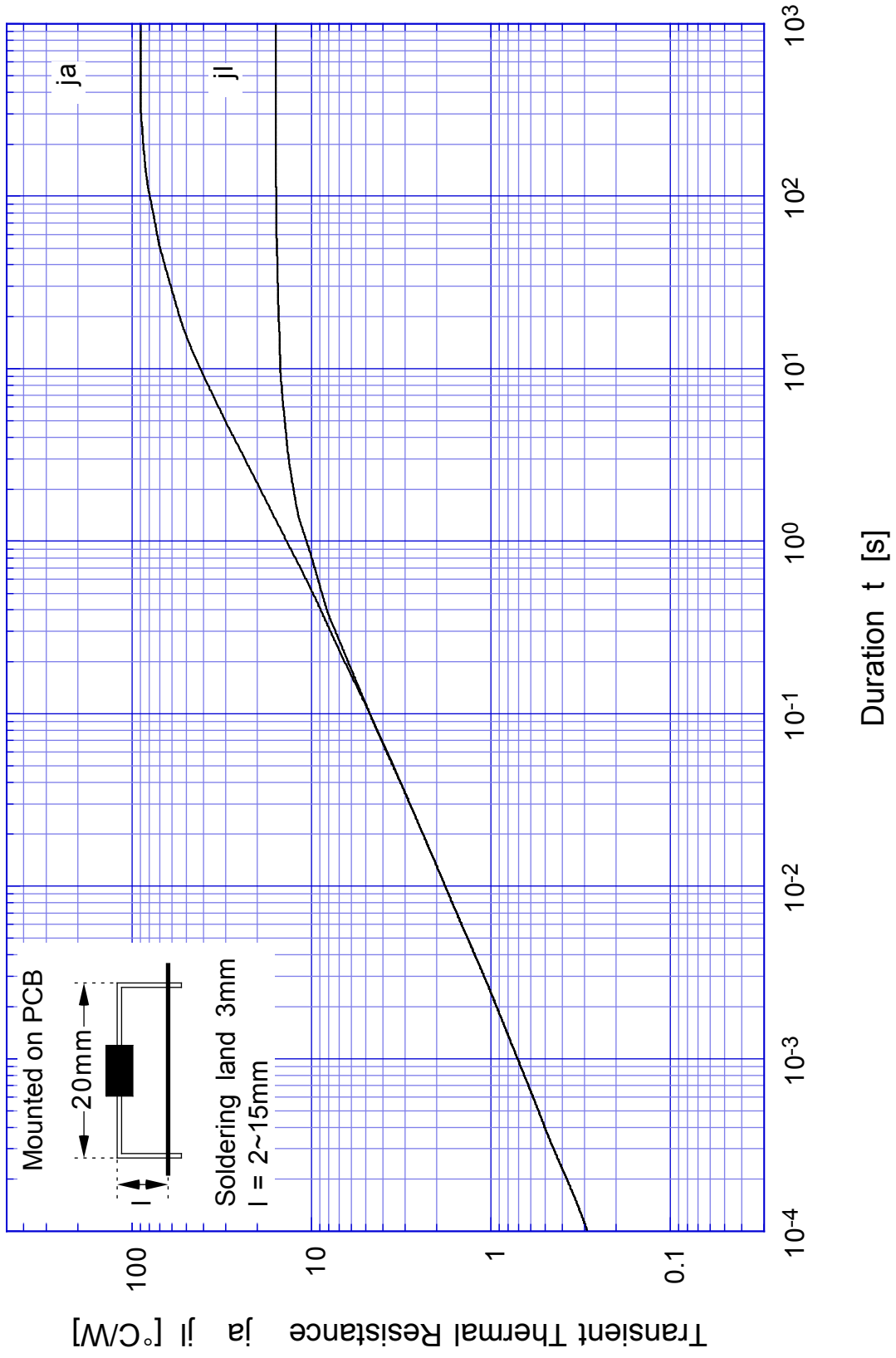
K1V26(W)

Pulse On-State Current Derating



K1V22(W)
K1V24(W)
K1V26(W)

Transient Thermal Resistance



K1V22(W)

K1V24(W)

K1V26(W) Breakover Voltage - Junction Temperature

