# SHINDENGEN

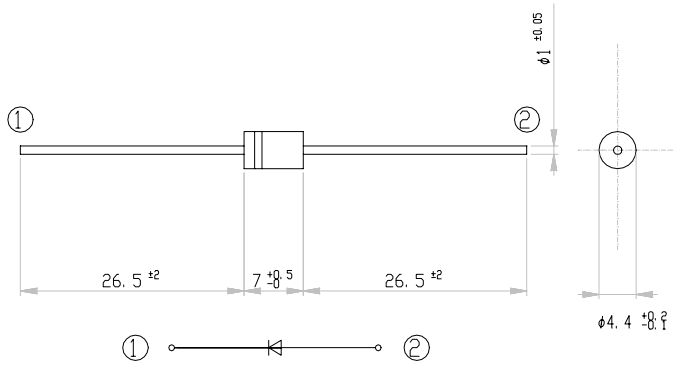
## Sidac

# K1V36(W)

## OUTLINE DIMENSIONS

Case : AX10

(Unit : mm)




## RATINGS

●Absolute Maximum Ratings

| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Storage Temperature | Tstg | | −40～125 | ℃ |
| Operating Junction Temperature | Tj | | 125 | ℃ |
| Maximum Off-state Voltage | $V_{DRM}$ | | 270 | V |
| RMS On-state Current | $I_T$ | Tl = 92℃, 50Hz sine wave ( θ = 180° ) | 1 | A |
| Surge On-state Current | $I_{TSM}$ | Tj = 25℃, 50Hz sine wave ( θ = 180° ), non-repetitive 1-cycle peak value | 13 | A |
| Pulse On-state Current | $I_{TRM}$ | Ta =25 ℃, pulse width $t_o$ = 10 μs, sine wave, repetitive peak value f = 1 kHz | 15 | A |
| | | Ta =25 ℃, pulse width $t_o$ = 10 μs, sine wave, repetitive peak value f = 60 Hz | 40 | |
| Critical Rate of Rise of On-state Current | $di_T/dt$ | | 50 | A/μs |

●Electrical Characteristics (Tl=25℃)

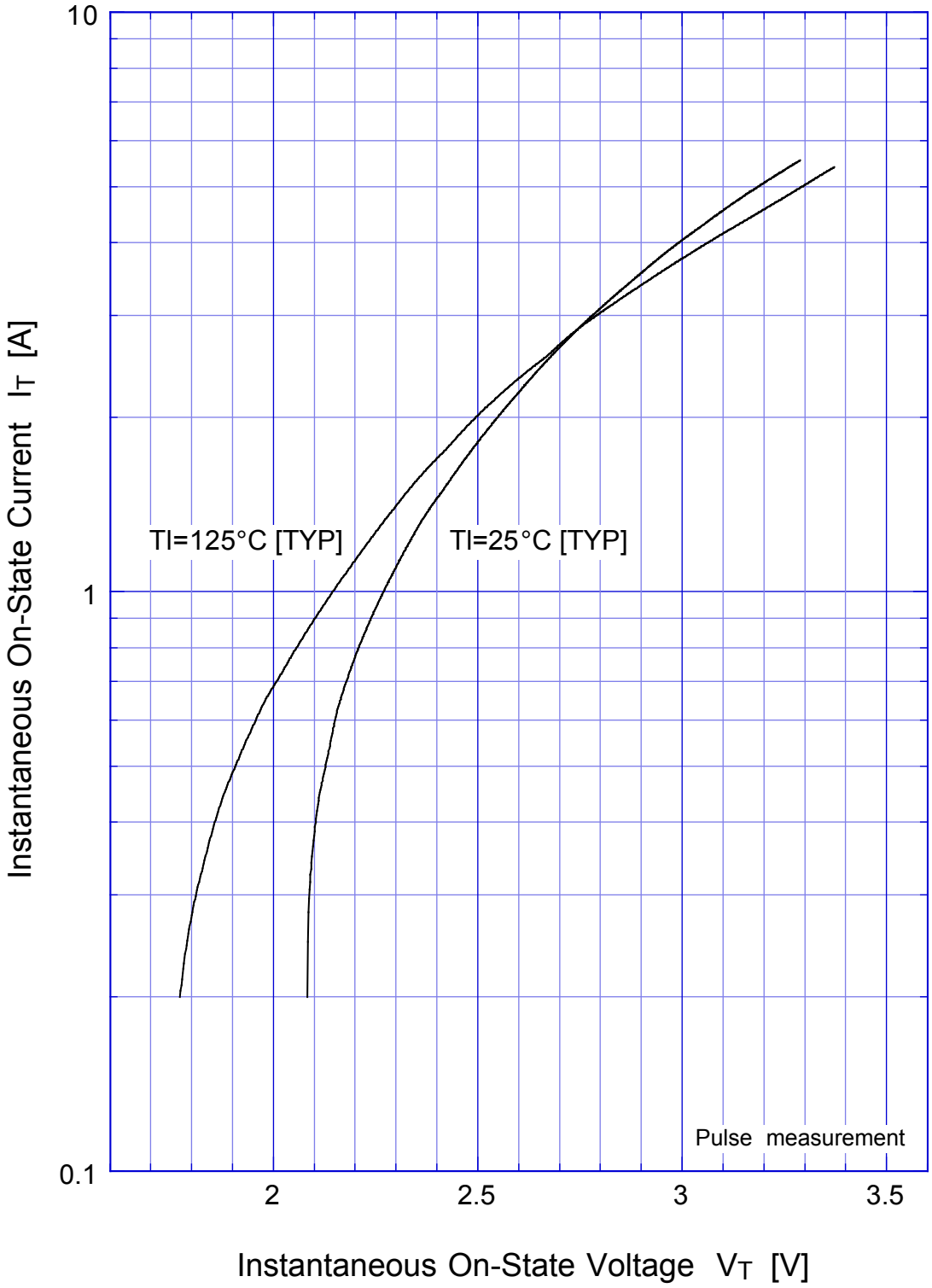
| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Breakover Voltage | $V_{BO}$ | $I_B$ = 0, 50Hz sine wave | 340～380 | V |
| Off-state Current | $I_{DRM}$ | $V_D = V_{DRM}$ | Max 10 | μA |
| Breakover Current | $I_{BO}$ | | Max 0.5 | mA |
| Holding Current | $I_H$ | | TYP 50 | mA |
| On-state Voltage | $V_T$ | $I_T$ = 1A | Max 3.0 | V |
| Switching Resistance | $R_S$ | | Min 0.1 | kΩ |
| Thermal Resistance | θ jl | Junction to lead | Max 15 | ℃/W |

●Standard Design with P.C.B.

| Item | Symbol | Conditions | Standard | Unit |
|---|---|---|---|---|
| RMS On-state Current | $I_T$ | Assembled in P.C.B., Ta = 25℃, soldering land 3mm φ | 0.55 | A |

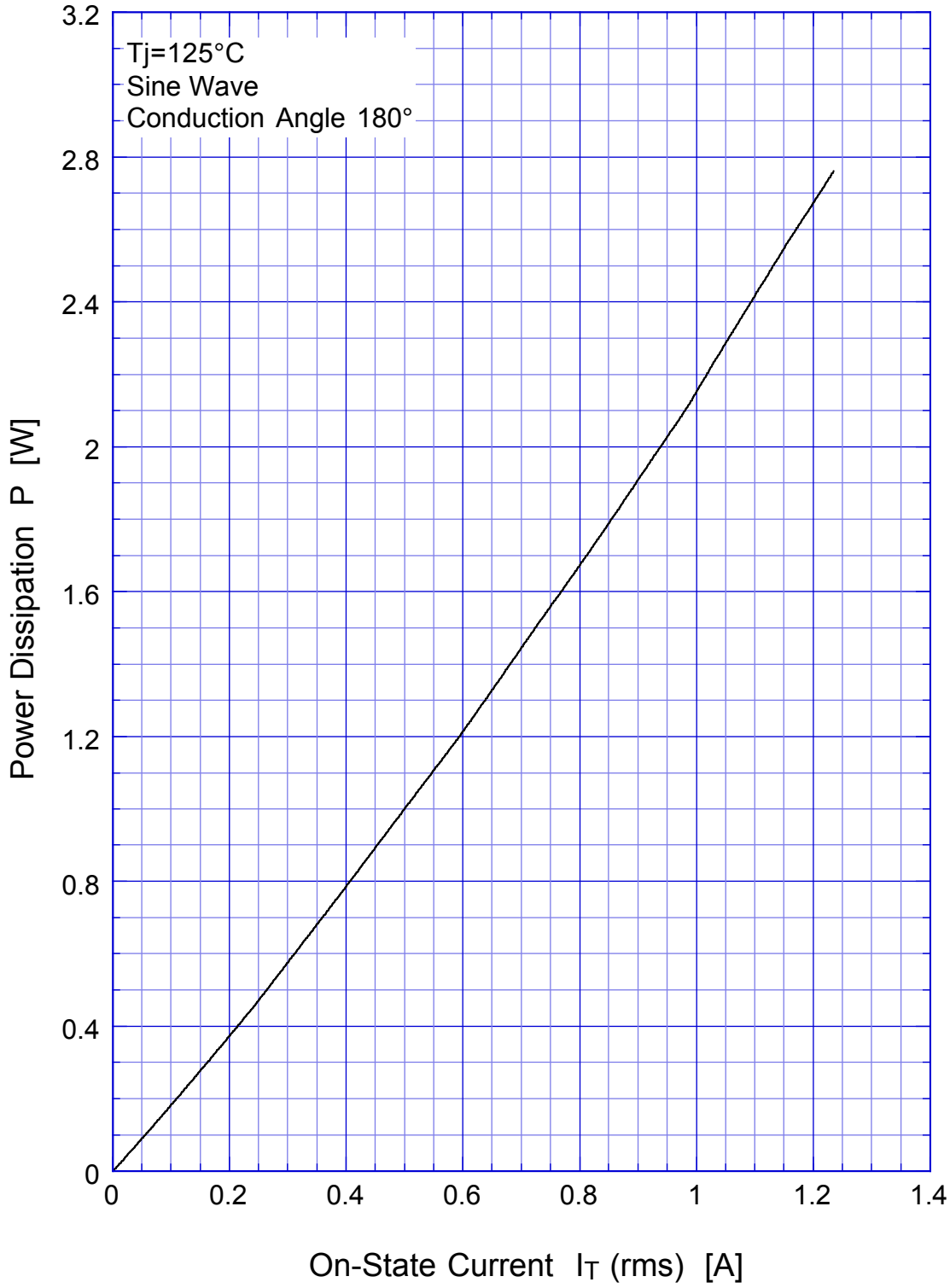
K1V33(W)
K1V34(W)
K1V36(W)
K1V38(W)

## Typical On-State Voltage



K1V33(W)
K1V34(W)
K1V36(W)
K1V38(W)

## Power Dissipation



K1V33(W)
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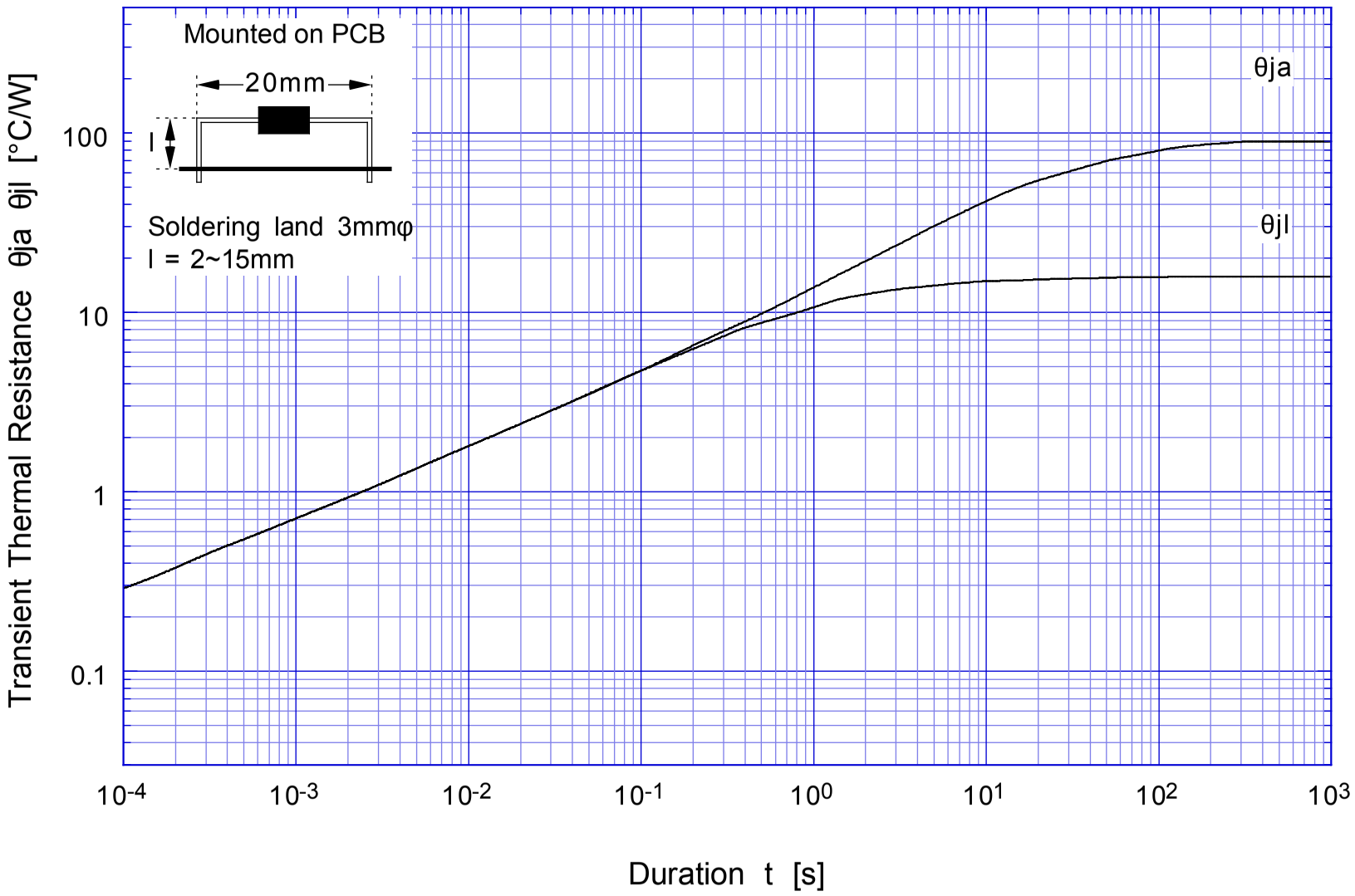
K1V36(W)
K1V38(W)

## Transient Thermal Resistance



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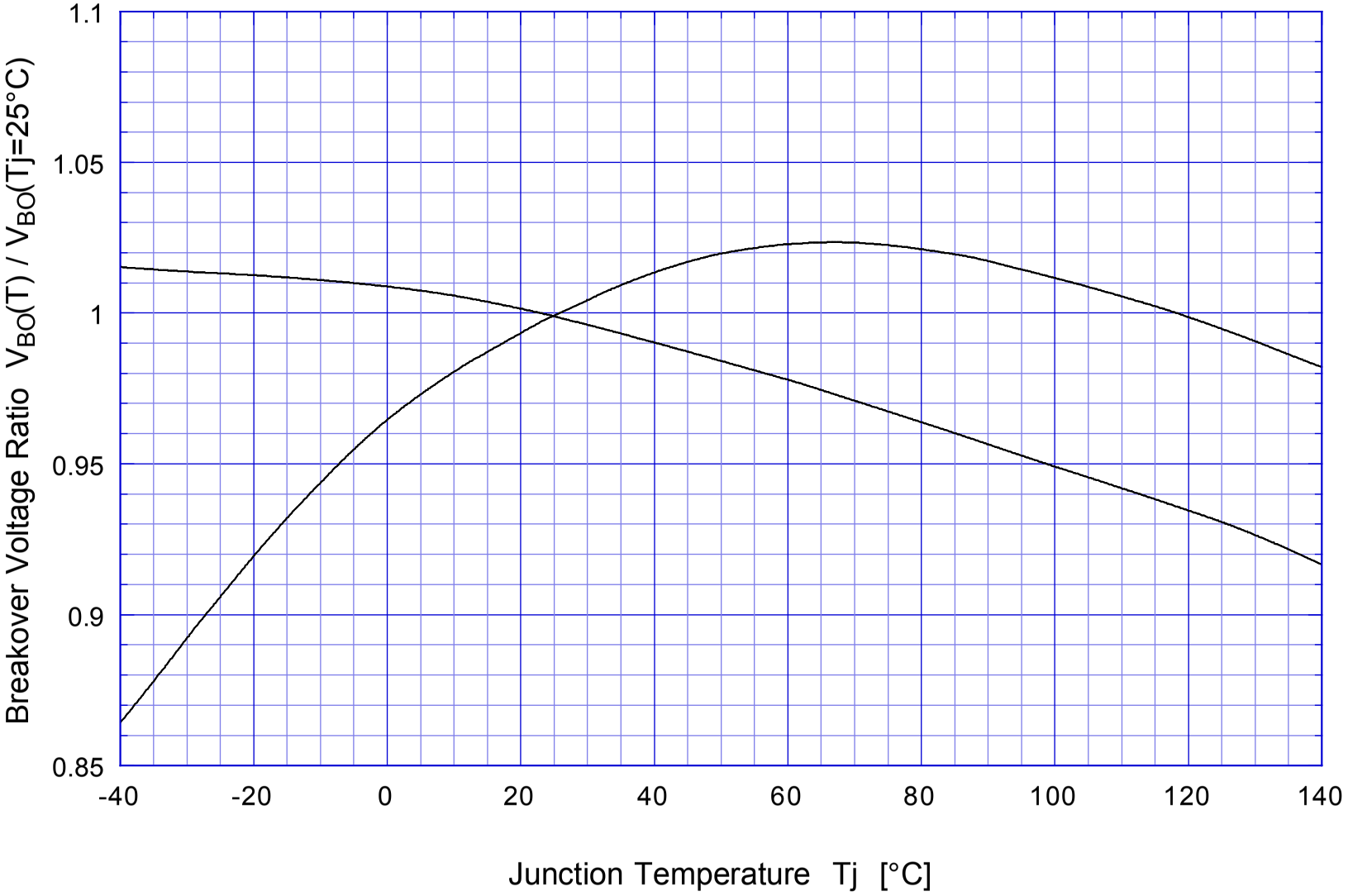
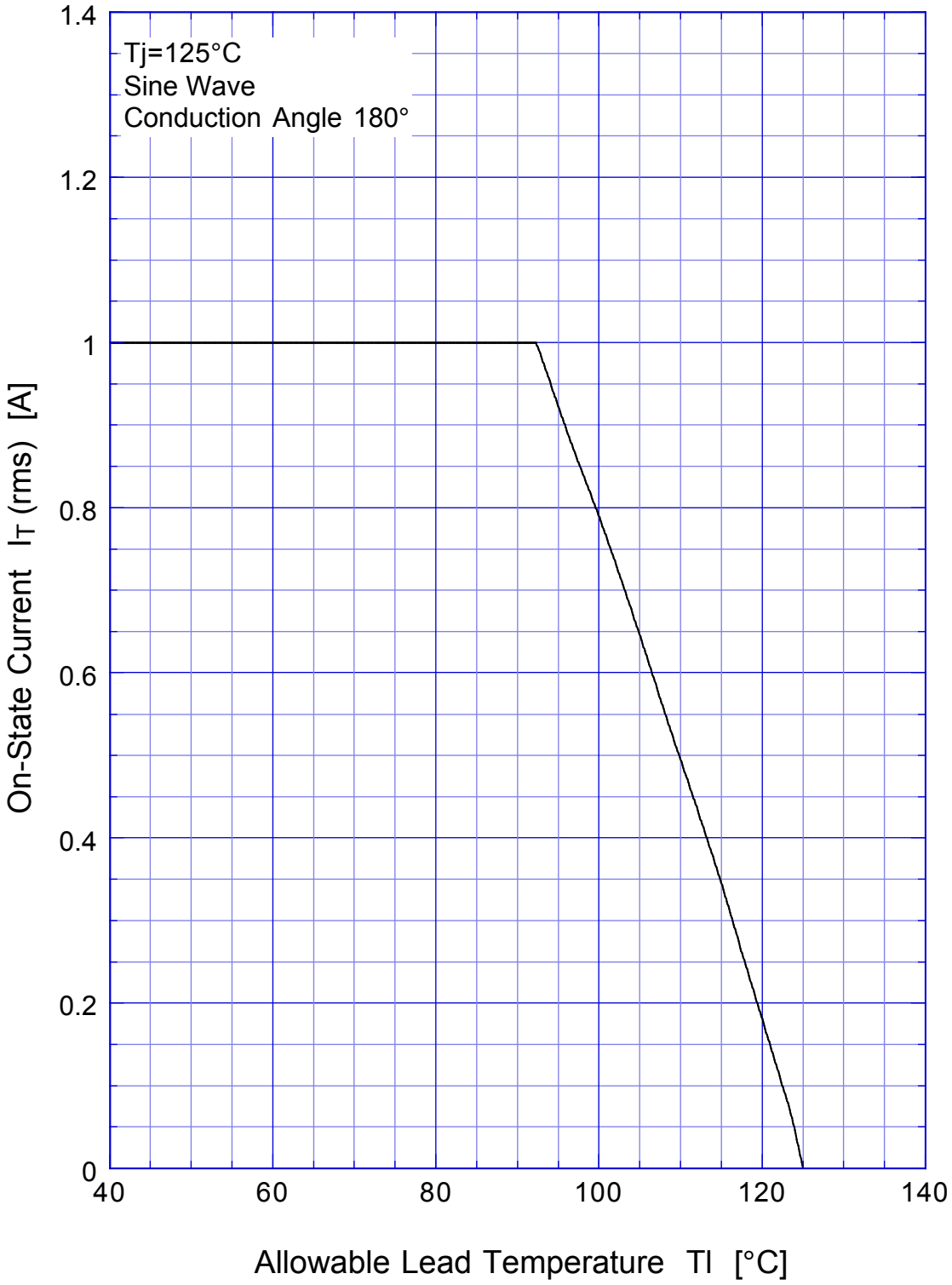
K1V34(W)
K1V36(W)
K1V38(W)

## Breakover Voltage - Junction Temperature

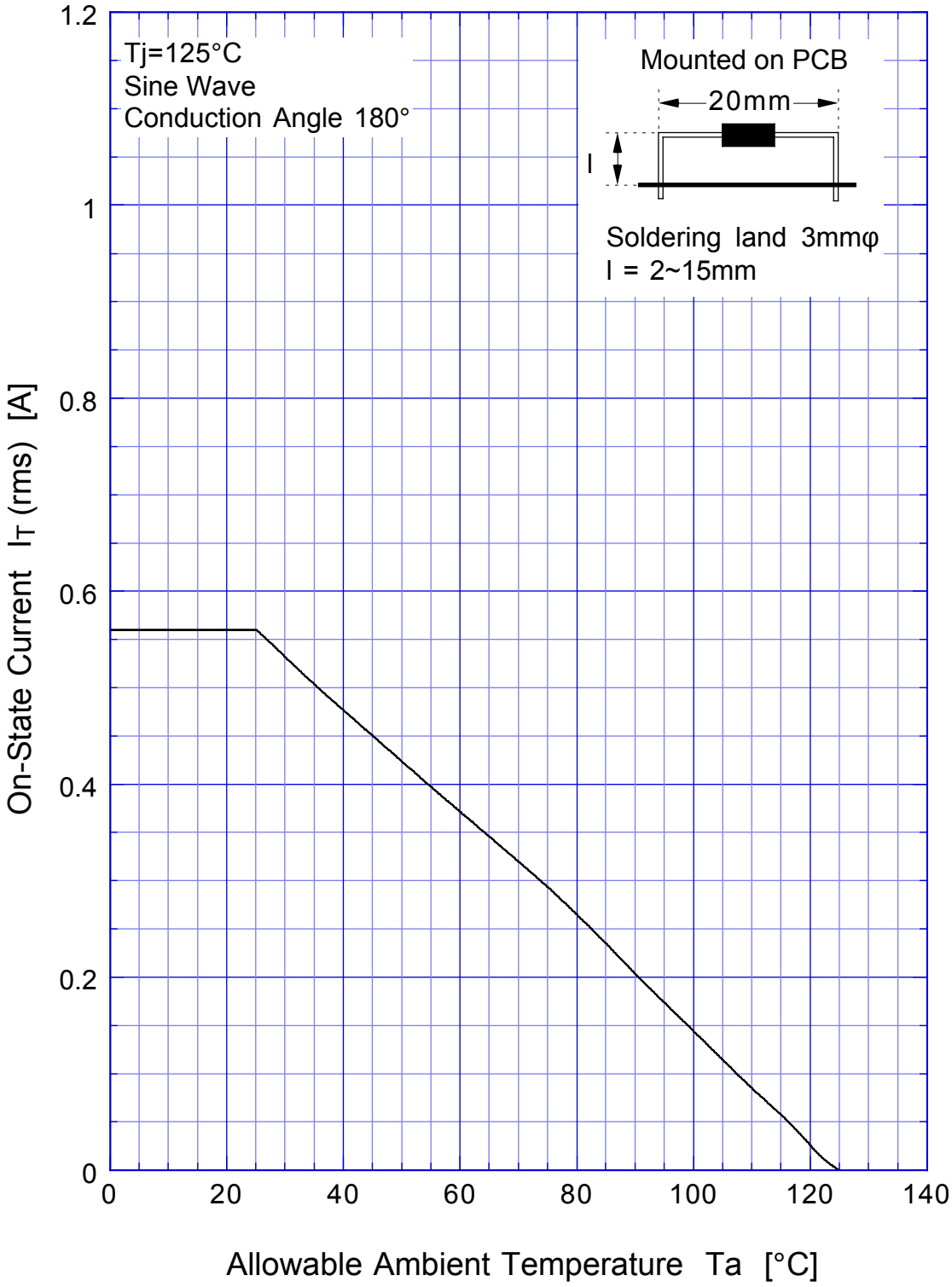


K1V33(W)
K1V34(W)
K1V36(W)
K1V38(W)

## Maximum Lead Temperature

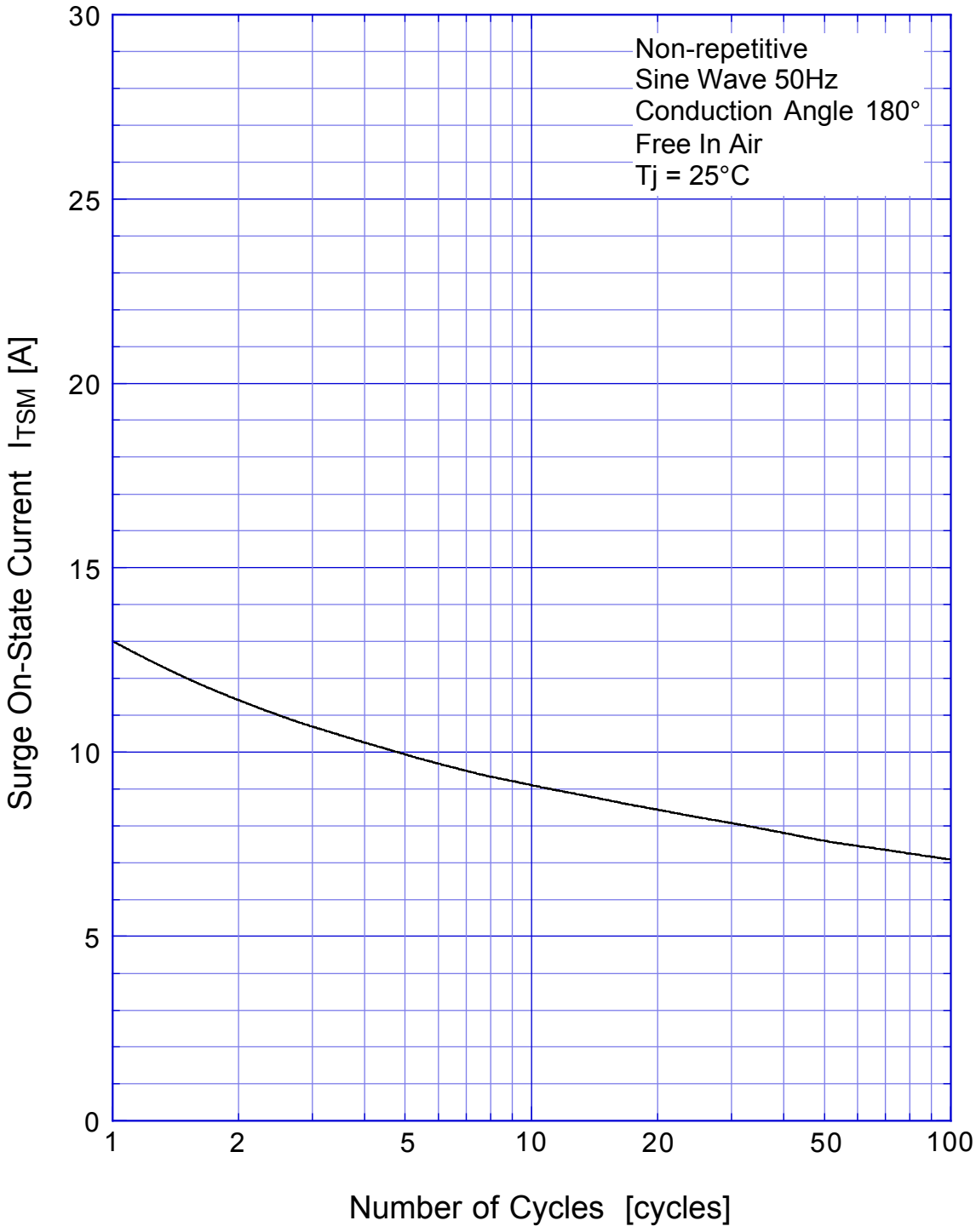


K1V33(W)
K1V34(W)
K1V36(W)
K1V38(W) Maximum Ambient Temperature



K1V33(W)
K1V34(W)
K1V36(W)
K1V38(W)

## Maximum Surge On-State Current



K1V33(W)
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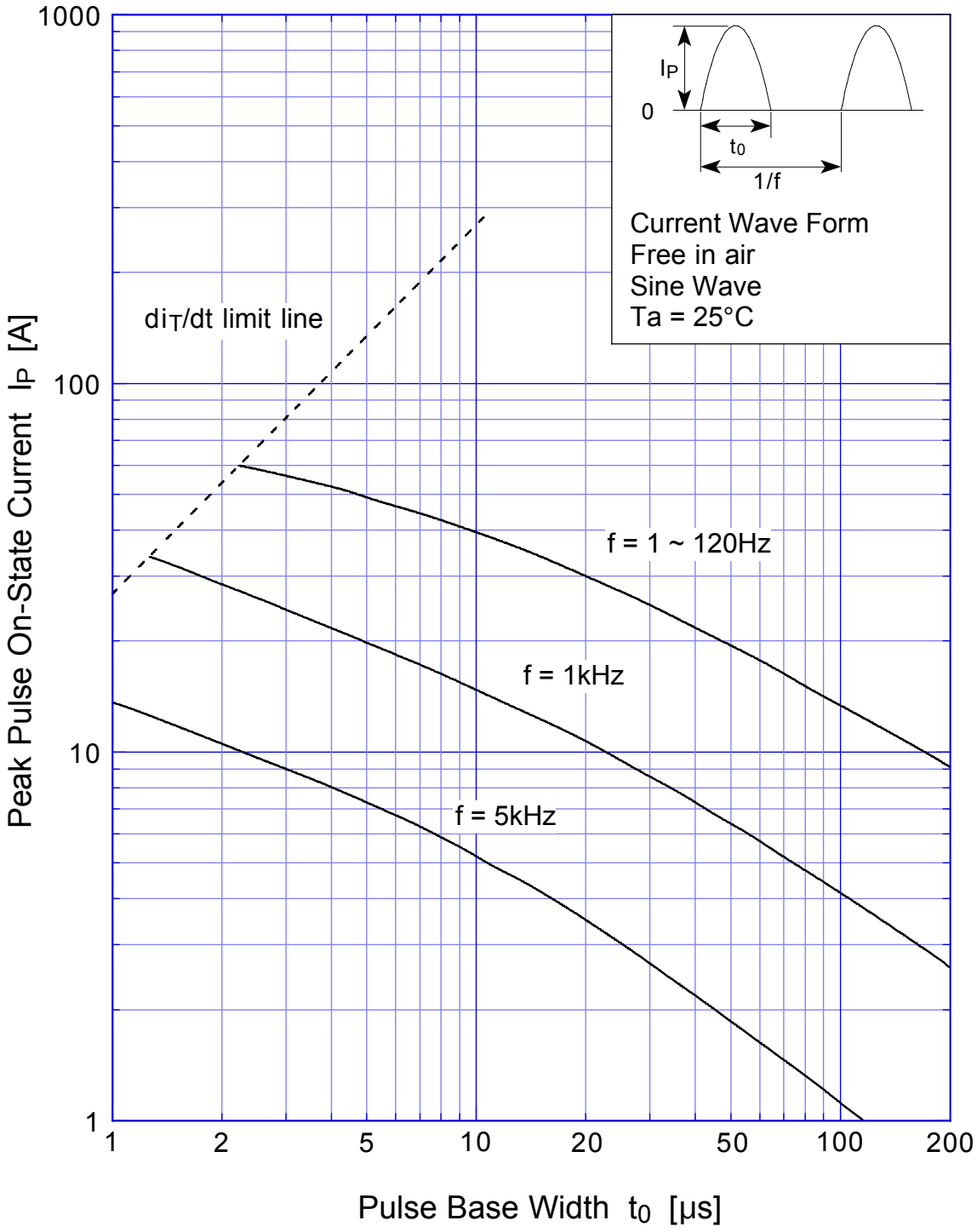
## Pulse On-State Current Rating



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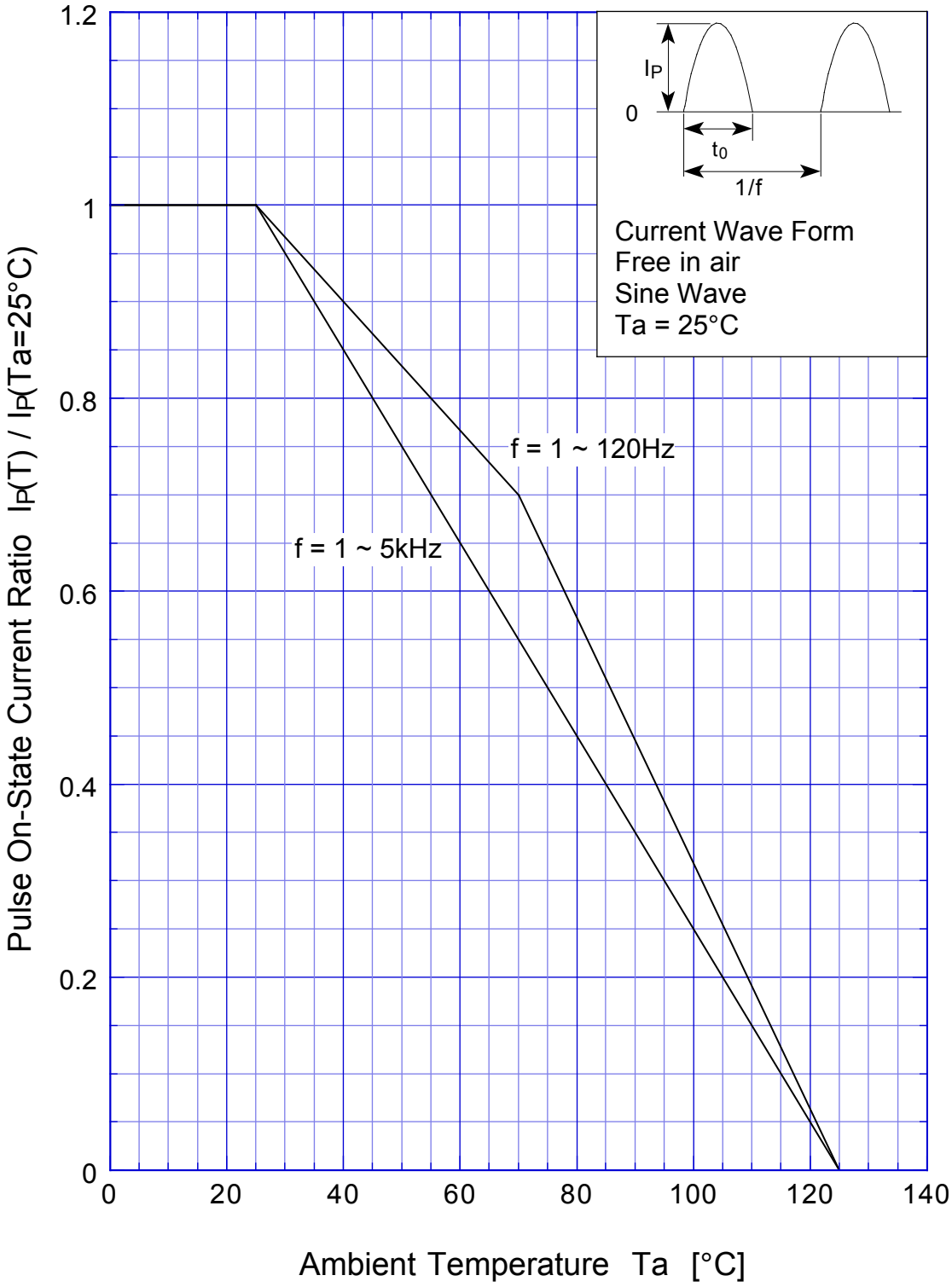
## Pulse On-State Current Derating



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