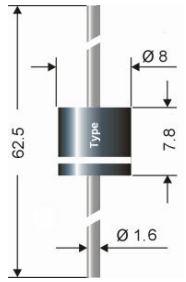
P2500ATL ... P2500MTL



Axial lead diode

Standard silicon rectifier diodes

P2500ATL ... P2500MTL

Forward Current: 25 A

Reverse Voltage: 50 to 1000 V

Preliminary Data

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

Mechanical Data

- Plastic case: 8 x 7,8 [mm]
- Weight approx.: 3,0 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo or 1000 pieces per reel

1) Valid, if leads are kept at ambient temperature T_A at a distance 0 mm from case
2) I_F = 5 A, T_j = 25 °C
3) T_A = 25 °C
4) Thermal resistance from junction to lead/terminal at a distance 0 mm from case
5) Max. junction temperatue Tj ≤185°C in reverse mode V_R=50%V_{RRM}, Tj ≤200°C in bypass mode

Type	Repetitive peak reverse voltage V_{RRM} V	Surge peak reverse voltage V_{RSM} V	Max. reverse recovery time I_F = - A, I_R = - A, I_{RR} = - A, t_{rr} ns	Max. forward voltage V_F 2)
P2500 ATL	50	50	-	0,85
P2500 BTL	100	100	-	0,85
P2500 DTL	200	200	-	0,85
P2500 GTL	400	400	-	0,85
P2500 JTL	600	600	-	0,87
P2500 KTL	800	800	-	0,87
P2500 MTL	1000	1000	-	0,87

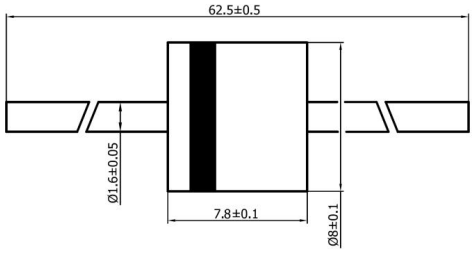
Absolute Maximum Ratings T_A = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C 1)	25	A
I_{FRM}	Repetitive peak forward current f > 15 Hz 1)	90	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave 3)	650	A
i²t	Rating for fusing, t < 10 ms 3)	2100	A²s
R_{thA}	Max. thermal resistance junction to ambient 1)		K/W
R_{thL}	Max. thermal resistance junction to terminals 4)	0,7	K/W
T_j	Operating junction temperature	- 50 ... + 175 (Tj ≤ 200 °C 5))	°C
T_s	Storage temperature	- 50 ... + 200	°C

Characteristics T_A = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, T_j = 25 °C; V_R = V_{RRM}	<25	µA
	T_j = °C; V_R = V_{RRM}		
C_J	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
Q_{rr}	Reverse recovery charge (U_R = V; I_F = A; dI_F/dt = A/ms)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy (I_R = mA; T_j = °C; inductive load switched off)	-	mJ

Dimensions in mm



case: 8 x 7,8 [mm]

 © by SEMIKRON

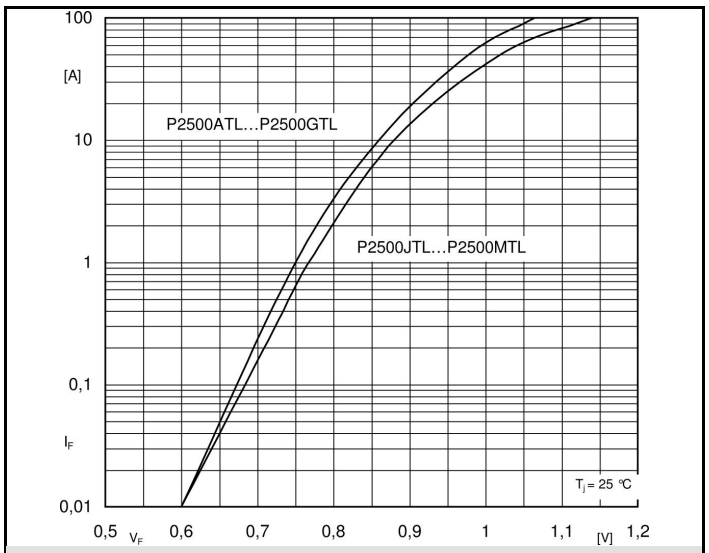


Fig. 1, Forward characteristics (typical values)

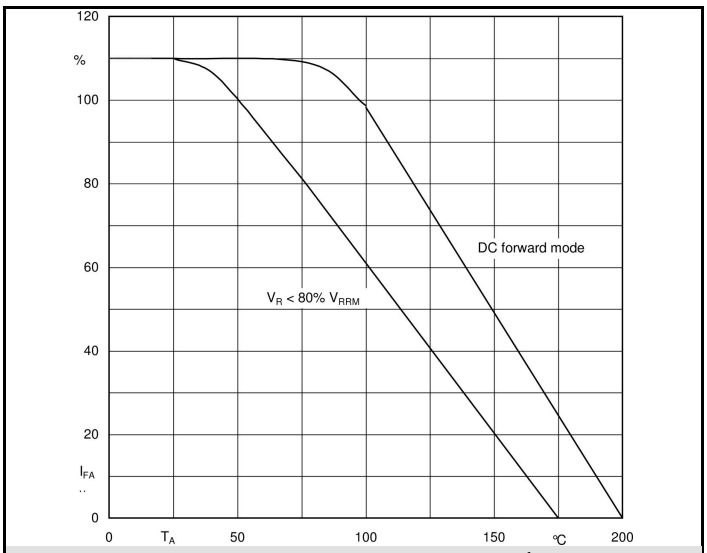


Fig. 2, Rated forward current vs. ambient temperature [1])

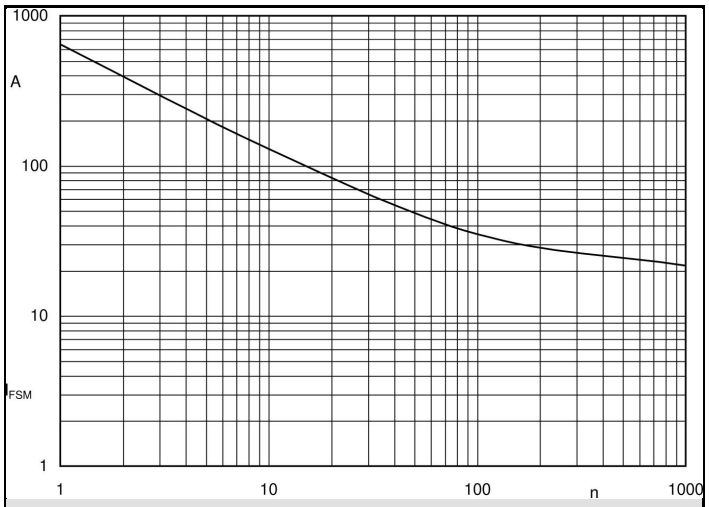


Fig. 3, I_{FSM} current versus number of cycles at 50 Hz

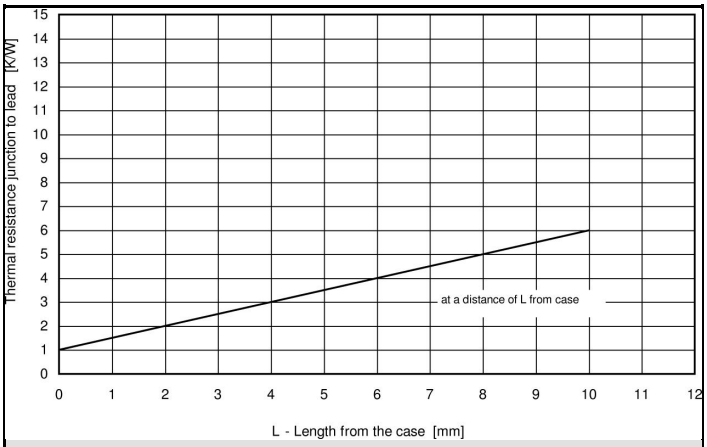


Fig. 4, Thermal resistance versus distance from case

 © by SEMIKRON