Rectifier Diode Modules
AMKE 1201-22

Symbols and parameters			Values	Units
I_{FAV}	Mean forward current	sin 180; T_C = 85 (100)°C	1360 (1100)	A
I_{FRMS}	RMS forward current	continuous operation	1700	A
V_{RSM}	Non-repetitive peak reverse voltage		2300	V
V_{RRM}	Repetitive peak reverse voltage		2200	V
I_{FSM}	Surge forward current	T_j = 25°C; 10 ms T_j = 150°C; 10 ms	41000 35000	A A
i^2t	I^2t value, rating for fusing	T_j = 25°C; 10 ms T_j = 150°C; 10 ms	8405000 6125000	A^2s A^2s
V_F	Forward voltage	T_j = 150°C; I_F =3000 A	max. 1.11	V
$V_{(TO)}$	On-state threshold voltage	T_j = 150°C	max. 0.75	V
r_T	On-state slope resistance	T_j = 150°C	max. 0.073	mΩ
I_{RD}	Direct reverse current	T_j = 150°C, V_{RD}=V_{RRM}	max. 150	mA
$R_{th(j-c)}$	Thermal resistance, junction to case	cont.; per chip / per module sin.180°; per chip / per module	0.0466 0.048	K/W K/W
$R_{th(c-s)}$	Thermal resistance, junction to heatsink	per chip / per module	0.015	K/W
T_j	Junction temperature		-40 … +150	°C
T_{stg}	Storage temperature range		-40 … +150	°C
V_{isol}	Insulation test voltage (r.m.s.)	a.c. 50 Hz; r.m.s.; 1s / 1min.	3600 / 3000	V
M_S	Mounting torque on heatsink	min / max	5.1 / 6.9	Nm
M_t	Mounting torque for terminals	min / max	16.2 / 19.8	Nm
a	Maximum allowable acceleration		5*9.81	m/s^2
W	Weight		1950	g

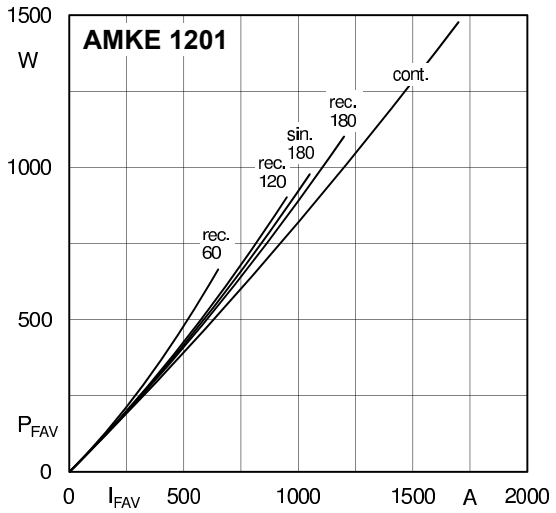


Fig. 11L: Power dissipation per diode vs. forward current

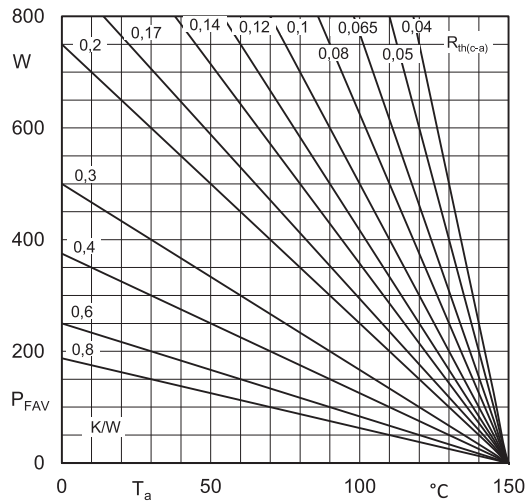


Fig. 11R: Power dissipation per diode vs. ambient temperature

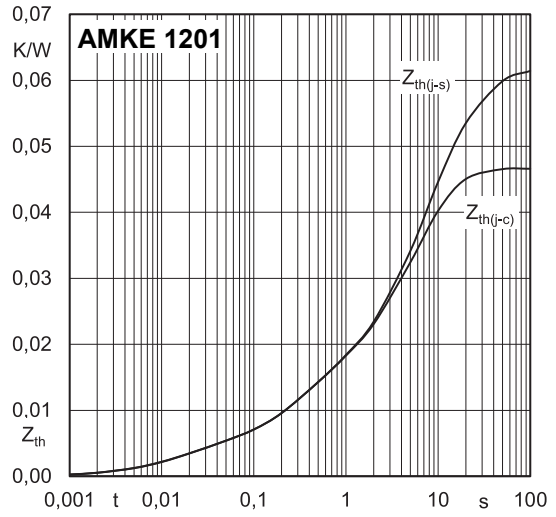


Fig. 14: Transient thermal impedance vs. time

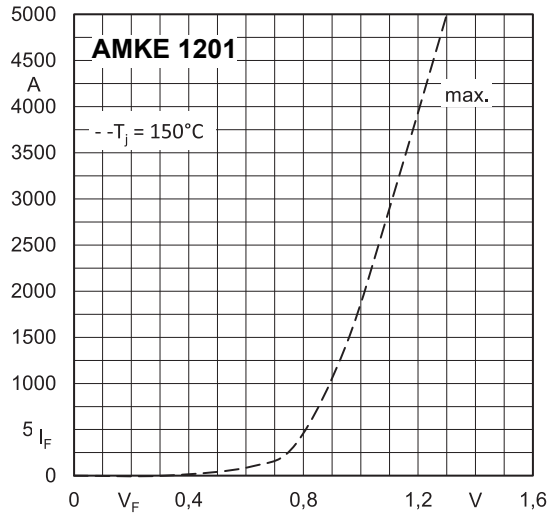


Fig. 15: Forward characteristics

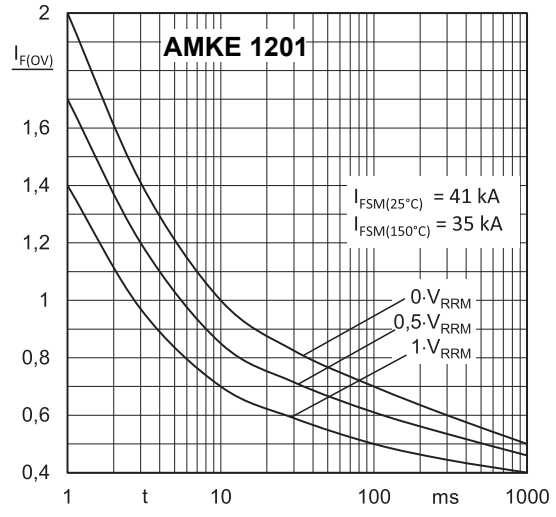
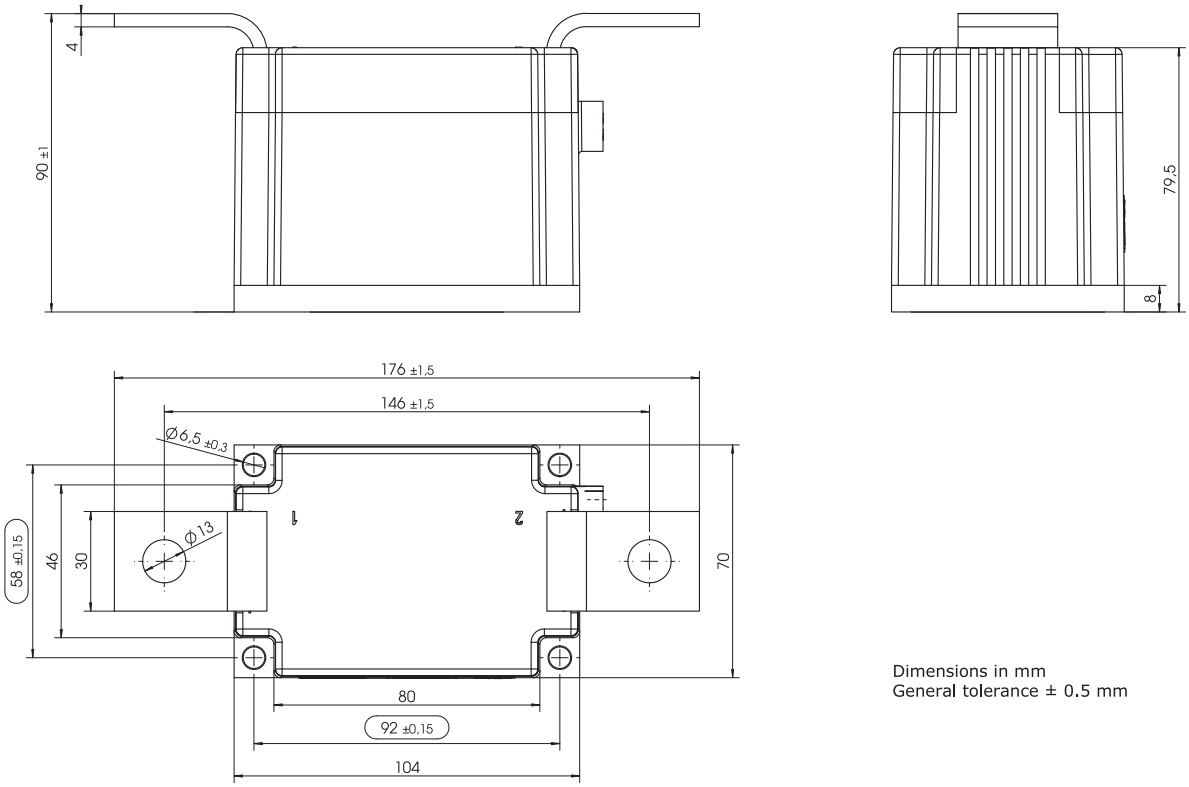


Fig. 16: Surge overload current vs. time

DIMENSIONS



Dimensions in mm
General tolerance ± 0.5 mm

TOPOLOGY OF INTERNAL CONNECTION