

Symbols and parameters			Values	Units
$I_{FAV}$	Mean forward current	sin 180; $T_C = 85 (100)^\circ\text{C}$	171 (132)	A
$I_{FRMS}$	RMS forward current	continuous operation	270	A
$I_{FSM}$	Surge forward current	$T_j = 25^\circ\text{C}; 10 \text{ ms}$	5000	A
		$T_j = 135^\circ\text{C}; 10 \text{ ms}$	4500	A
$i^2t$	$i^2t$ value, rating for fusing	$T_j = 25^\circ\text{C}; 10 \text{ ms}$	125000	$\text{A}^2\text{s}$
		$T_j = 135^\circ\text{C}; 10 \text{ ms}$	101250	$\text{A}^2\text{s}$
$V_{RSM}$	Non-repetitive peak reverse voltage		1700	V
$V_{RRM}$	Repetitive peak reverse voltage		1600	V
$T_j$	Junction temperature		-40 ... +135	$^\circ\text{C}$
$T_{stg}$	Storage temperature range		-40 ... +125	$^\circ\text{C}$
$V_{ISOL}$	Insulation test voltage (r.m.s.)	a.c. 50 Hz; r.m.s.; 1s / 1min.	3600 / 3000	V
$V_F$	Forward voltage	$T_j = 25^\circ\text{C}; I_F = 450 \text{ A}$	max. 1.56	V
$V_{(TO)}$	On-state threshold voltage	$T_j = 135^\circ\text{C}$	max. 0.82	V
$r_T$	On-state slope resistance	$T_j = 135^\circ\text{C}$	max. 1.35	$\text{m}\Omega$
$I_{RD}$	Direct reverse current	$T_j = 135^\circ\text{C}, V_{RD} = V_{RRM}$	max. 3	mA
$R_{th(j-c)}$	Thermal resistance, junction to case	cont.; per chip / per module	0.2 / 0.1	K/W
		sin.180°; per chip / per module	0.21 / 0.105	K/W
$R_{th(c-s)}$	Thermal resistance, junction to heatsink	per chip / per module	00.1 / 0.05	K/W
$M_s$	Mounting torque on heatsink	min / max	4.25 / 5.75	Nm
$M_t$	Mounting torque for terminals	min / max	4.25 / 5.75	Nm
$a$	Maximum allowable acceleration		5*9.81	$\text{m/s}^2$
$W$	Weight	approx.	165	g

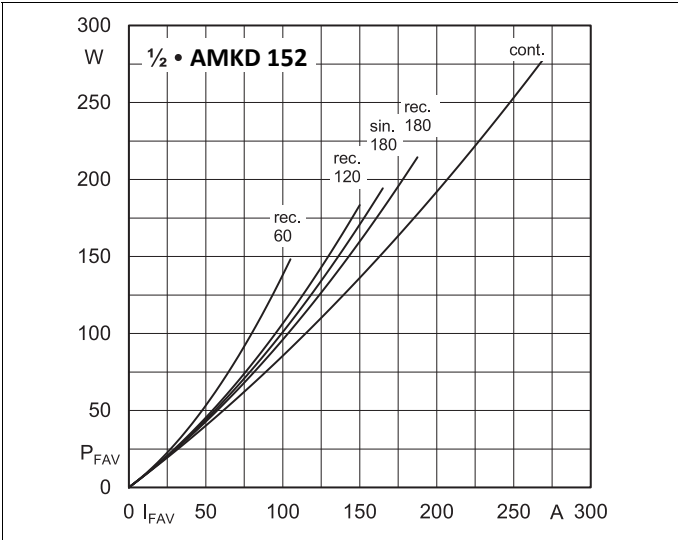


Fig. 11L: Power dissipation per diode vs. forward current

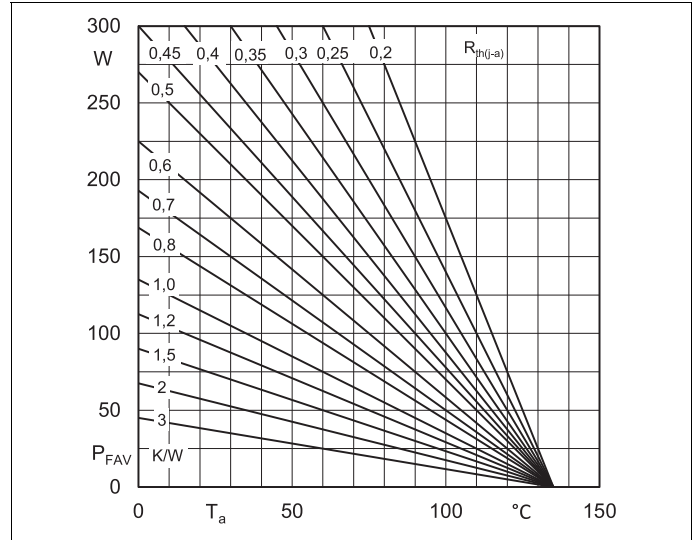


Fig. 11R: Power dissipation per diode vs. ambient temperature

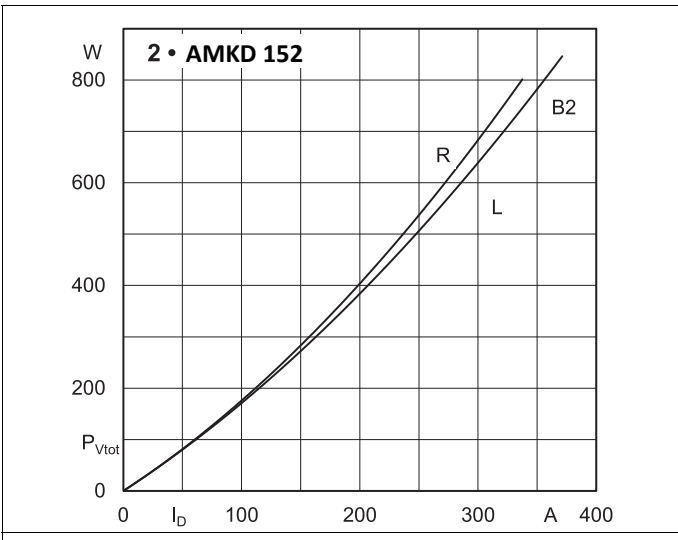


Fig. 12L: Power dissipation of two modules vs. direct current

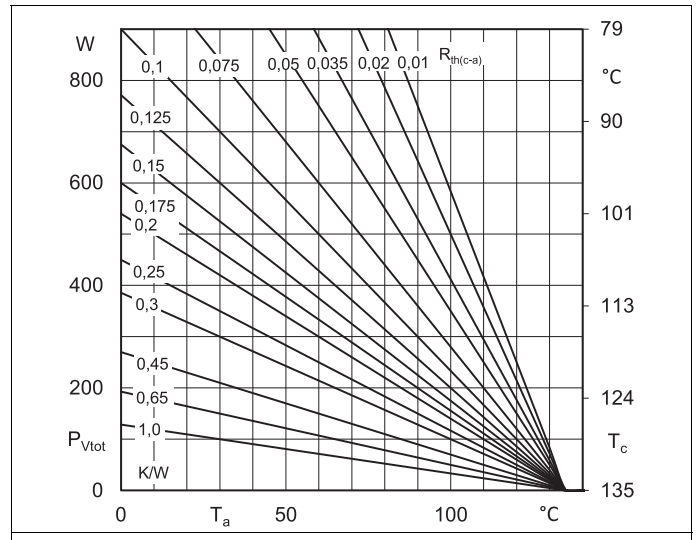


Fig. 12R: Power dissipation of two modules vs. case temperature

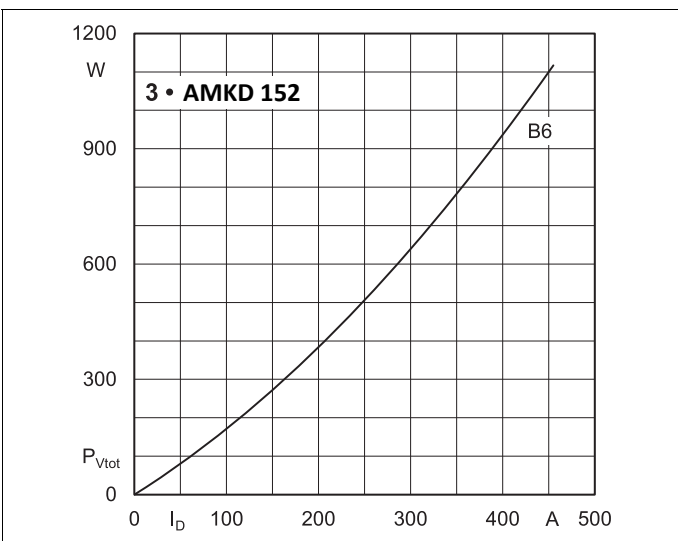


Fig. 13L: Power dissipation of three modules vs. direct current

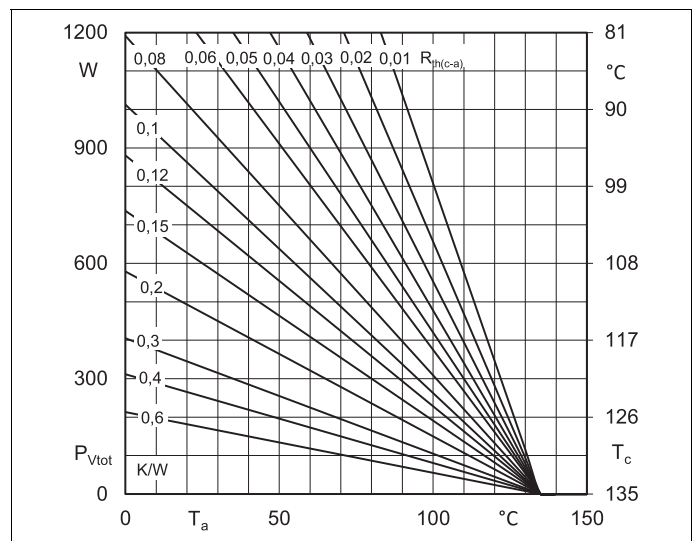


Fig. 13R: Power dissipation of three modules vs. case temperature

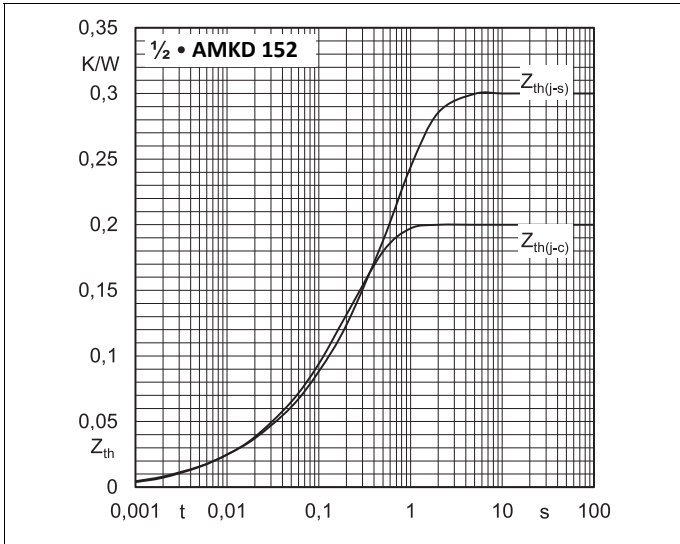


Fig. 14: Transient thermal impedance vs. time

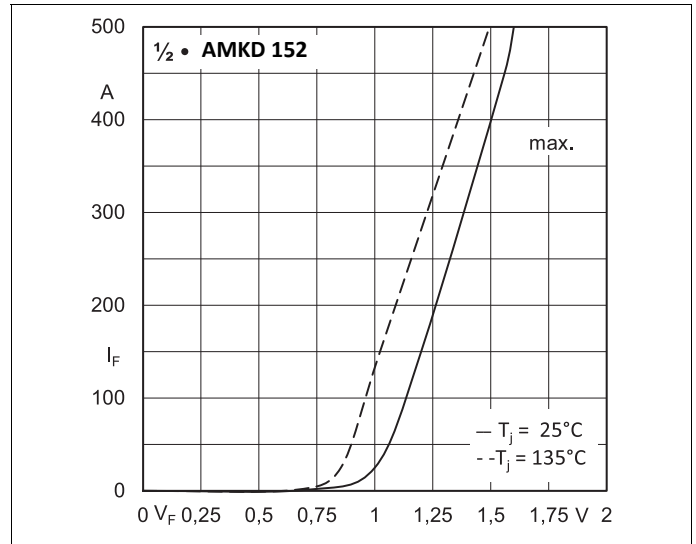


Fig. 15: Forward characteristics

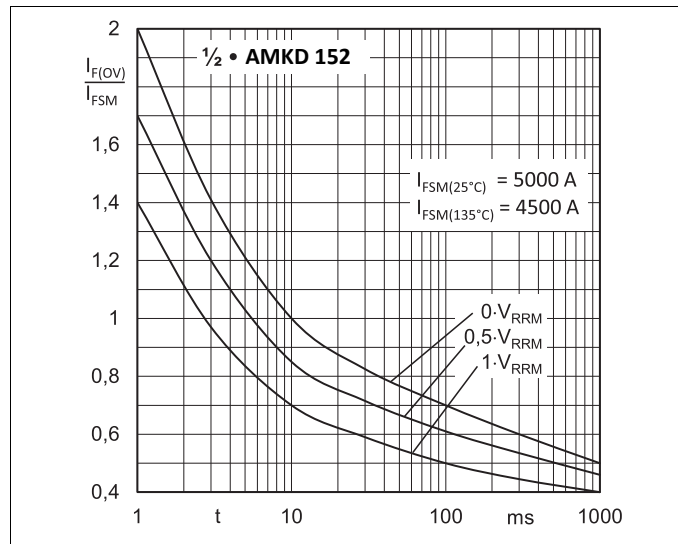
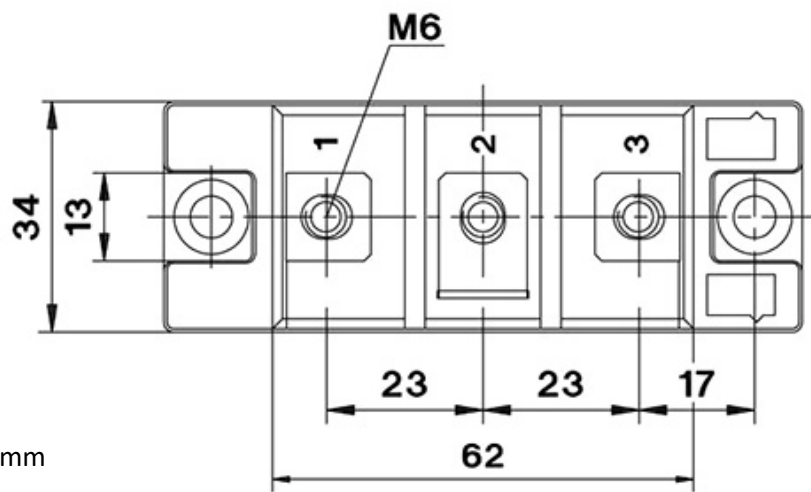
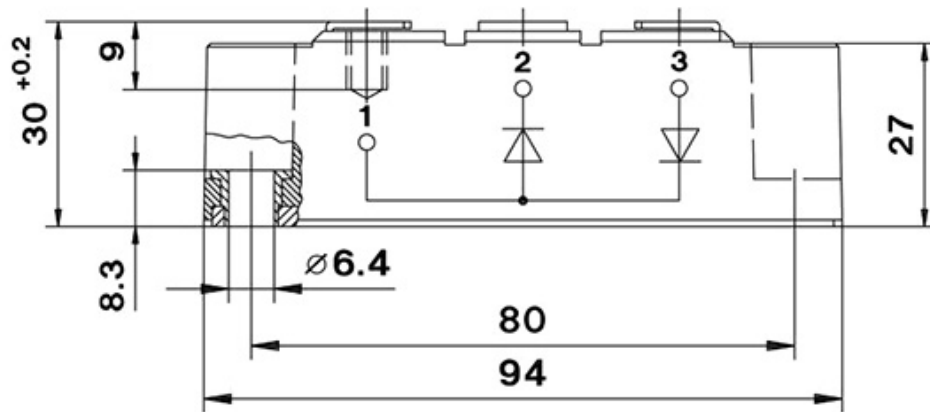


Fig. 16: Surge overload current vs. time

## DIMENSIONS



Dimensions in mm

## TOPOLOGY OF INTERNAL CONNECTION

