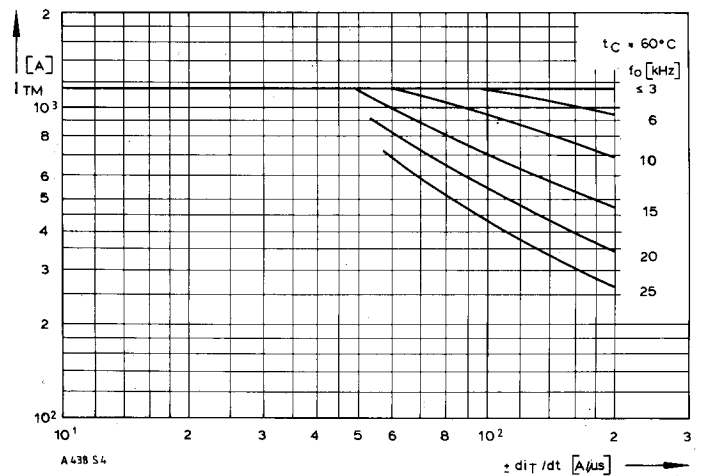
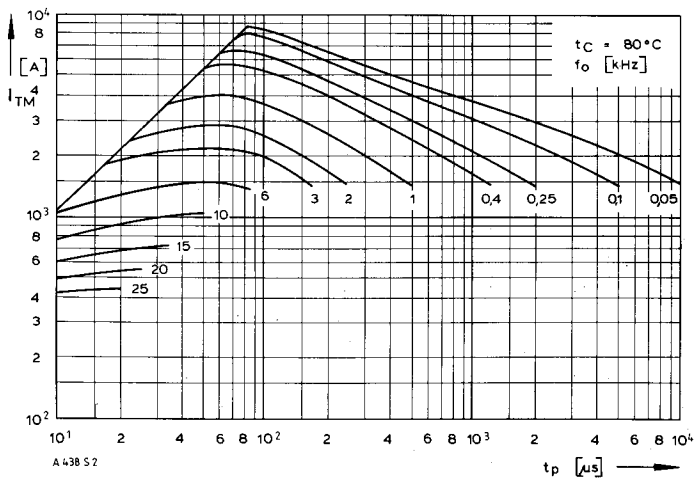


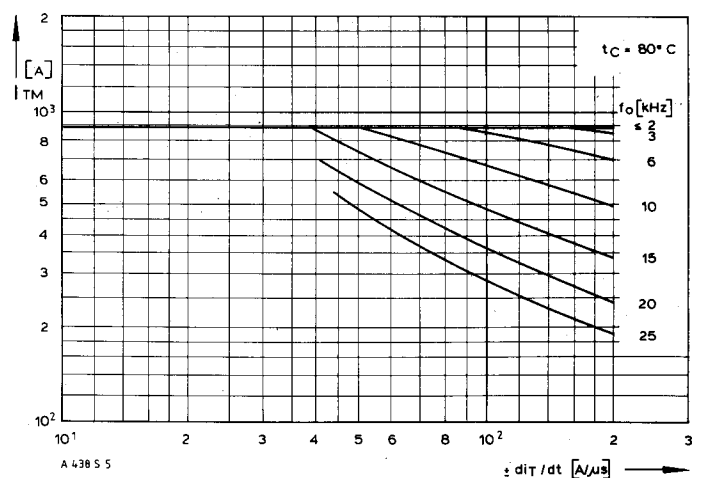
Bild/Fig. 1



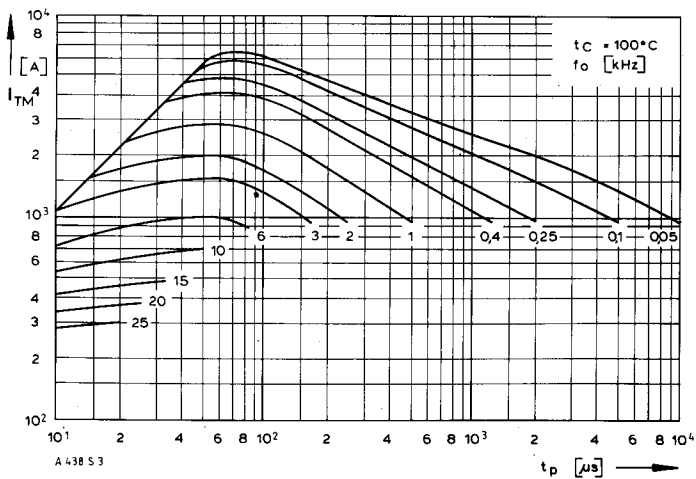
Bild/Fig. 4



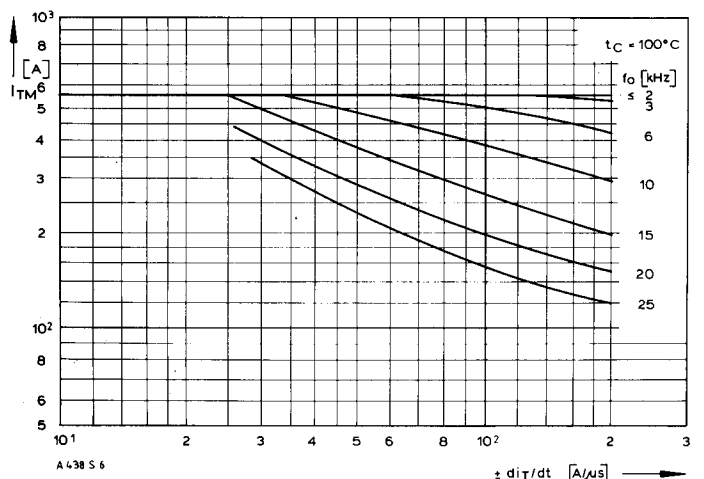
Bild/Fig. 2



Bild/Fig. 5



Bild/Fig. 3



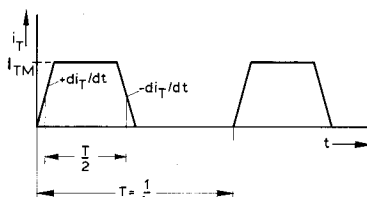
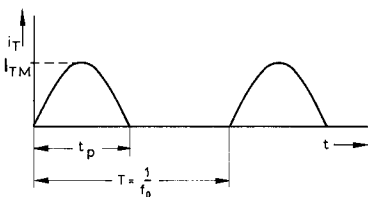
Bild/Fig. 6

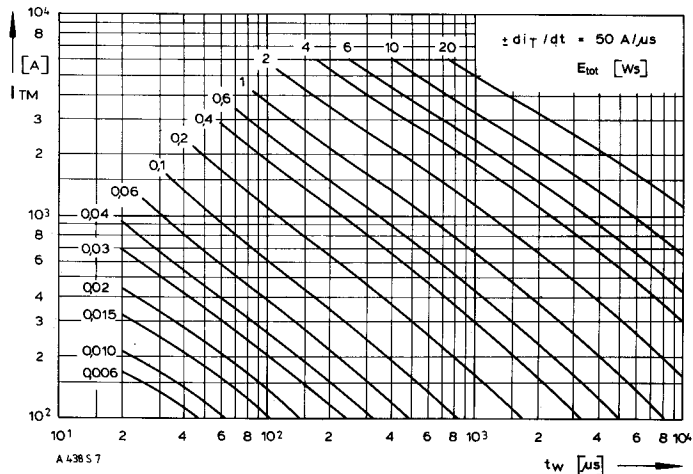
Bild/Fig. 1, 2, 3  
Steuergenerator/pulse generator:  
 $i_G = 2,4 \text{ A}$ ,  $di_G/dt = 2,4 \text{ A}/\mu\text{s}$

RC-Glied/RC-network:  
 $R [\Omega] \geq 0,02 V_{DM} [V]$   
 $C \leq 0,22 \mu\text{F}$   
 $V_{DM} \leq 0,67 V_{DRM}$

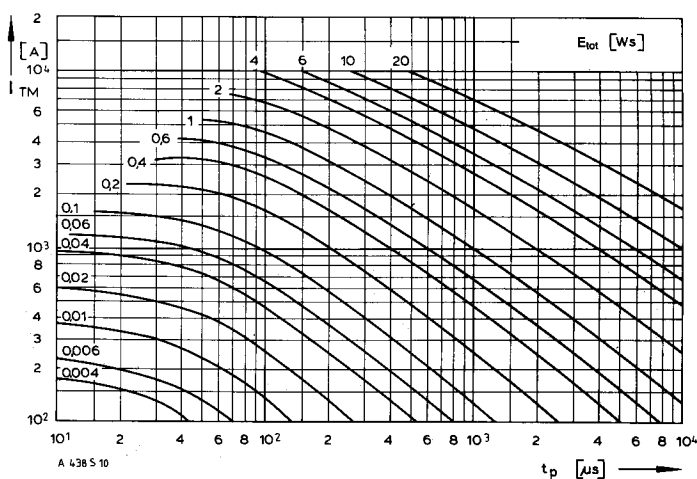
Bild/Fig. 4, 5, 6  
Steuergenerator/pulse generator:  
 $i_G = 2,4 \text{ A}$ ,  $di_G/dt = 2,4 \text{ A}/\mu\text{s}$

RC-Glied/RC-network:  
 $R [\Omega] \geq 0,02 V_{DM} [V]$   
 $C \leq 0,33 \mu\text{F}$   
 $V_{DM} \leq 0,67 V_{DRM}$

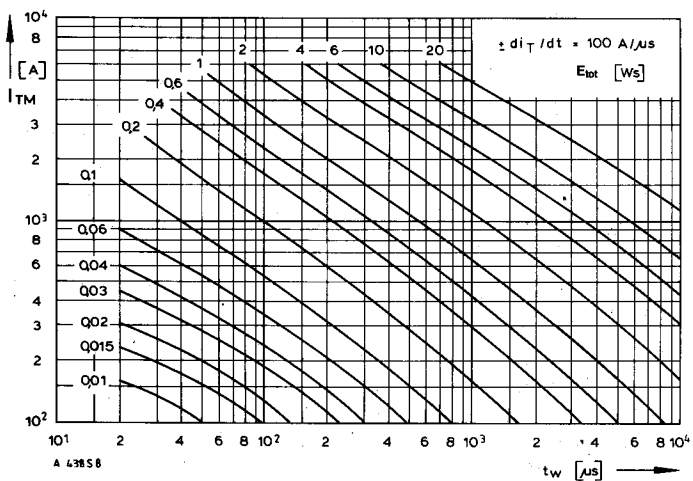




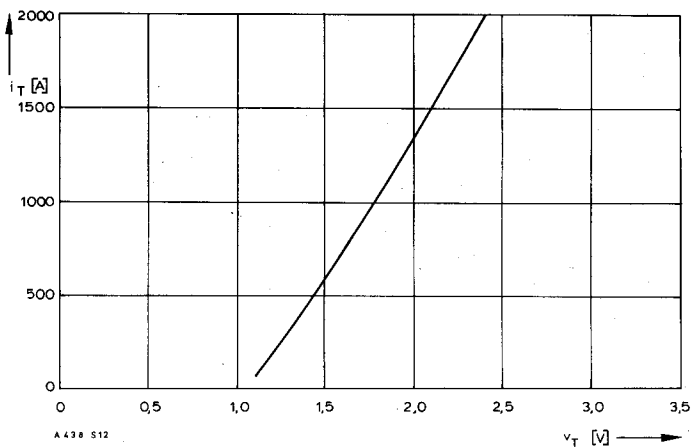
Bild/Fig. 7



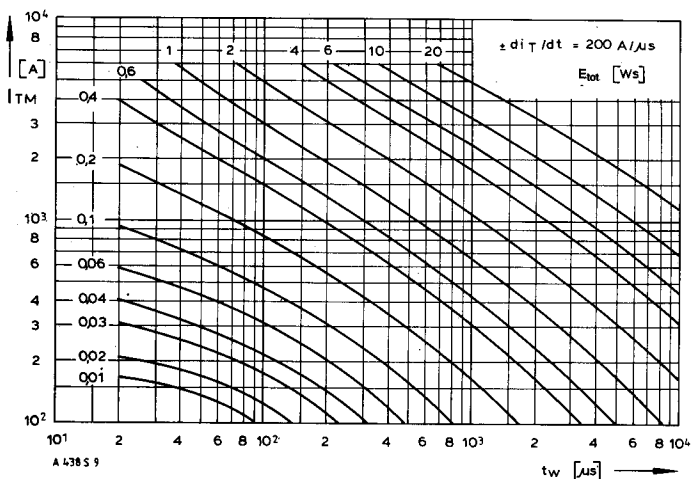
Bild/Fig. 13



Bild/Fig. 8



Bild/Fig. 14



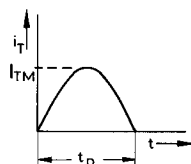
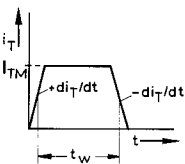
Bild/Fig. 9

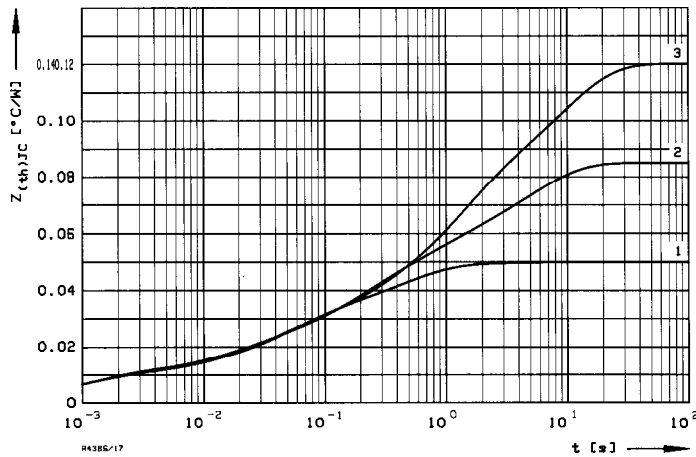
Bild/Fig. 7, 8, 9  
Steuergenerator/pulse generator:  
 $i_G = 2,4 \text{ A}$ ,  $di_G/dt = 2,4 \text{ A}/\mu\text{s}$

RC-Glied/RC-network:  
 $R [\Omega] \geq 0,02 v_{DM} [V]$   
 $C \leq 0,33 \mu\text{F}$   
 $v_{DM} \leq 0,67 v_{DRM}$

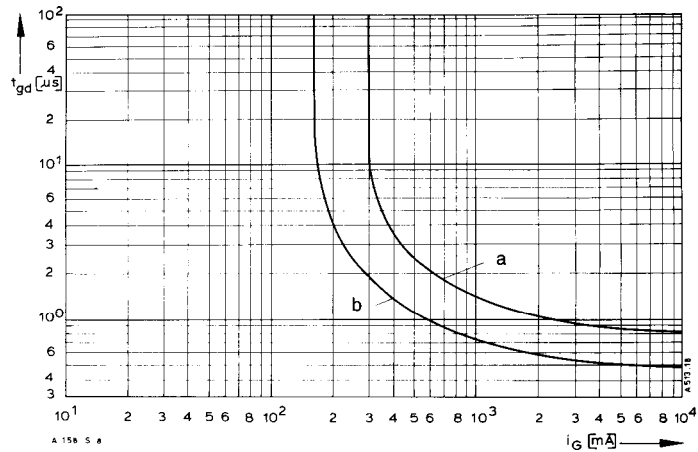
(zu Bild/to Fig. 13)  
Steuergenerator/pulse generator:  
 $i_G = 2,4 \text{ A}$ ,  $di_G/dt = 2,4 \text{ A}/\mu\text{s}$

RC-Glied/RC-network:  
 $R [\Omega] \geq 0,02 v_{DM} [V]$   
 $C \leq 0,22 \mu\text{F}$

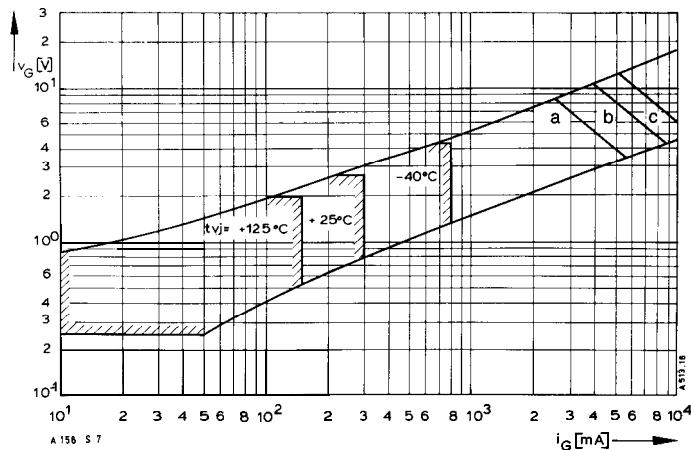




Bild/Fig. 17  
 Transienter innerer Wärmewiderstand  $Z_{thJC} = f(t)$ , DC  
 Transient thermal impedance  $Z_{thJC} = f(t)$ , DC  
 1 Beidseitige Kühlung/two-sided cooling  
 2 Anodenseitige Kühlung/anode side cooling  
 3 Kathodenseitige Kühlung/cathode side cooling



BildFig. 16  
 ZündverzugsGate controlled delay time  $t_{gd} = f(i_{GM})$ ,  $t_{vj} = 25^\circ\text{C}$ ,  $di_G/dt = i_{GM}/1\mu\text{s}$   
 a - Maximaler Verlauf/Limiting Characteristic  
 b - Typischer Verlauf/Typical Characteristic



Bild/Fig. 19  
 Steuercharakteristik mit Zündbereichen/Gate Characteristic with triggering areas  
 $V_G = f(i_G)$ ,  $V_D = 12\text{ V}$

Parameter:	a	b	c
Steuerimpulsdauer/Trigger pulse duration $t_n$ [ms]	10	1	0.5
Höchstzulässige Spitzensteuerverlustleistung/ Max. rated peak gate power dissipation $P_{GM}$ [W]	20	40	60

Analytische Elemente des transienten Wärmewiderstandes  $Z_{thJC}$  für DC  
 Analytical elements of transient thermal impedance  $Z_{thJC}$  for DC

Kühlung	Pos. n	1	2	3	4	5	6	7
beidseitig	$R_{thn}$ [°C/W]	0,0105	0,00283	0,0167	0,0188	0,00116		
two-sided	$\tau_n$ [s]	0,00113	0,0255	0,0511	0,429	2,49		
anodenseitig	$R_{thn}$ [°C/W]	0,0094	0,00974	0,0182	0,0161	0,0316		
anode-sided	$\tau_n$ [s]	0,000984	0,017	0,15	0,6	5,0		
kathodenseitig	$R_{thn}$ [°C/W]	0,00928	0,0145	0,00868	0,0401	0,0475		
cathode-sided	$\tau_n$ [s]	0,000939	0,0285	0,156	1,12	9,1		

Analytische Funktion/analytical function:

$$Z_{thJC} = \sum_{n=1}^{n_{max}} R_{thn} (1 - \text{EXP}(-t/\tau_n))$$

## **Terms & Conditions of Usage**

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