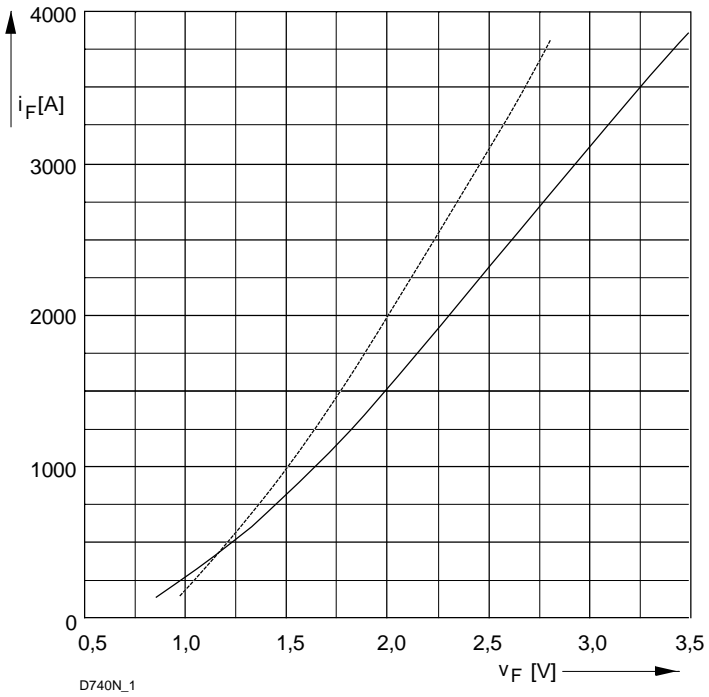
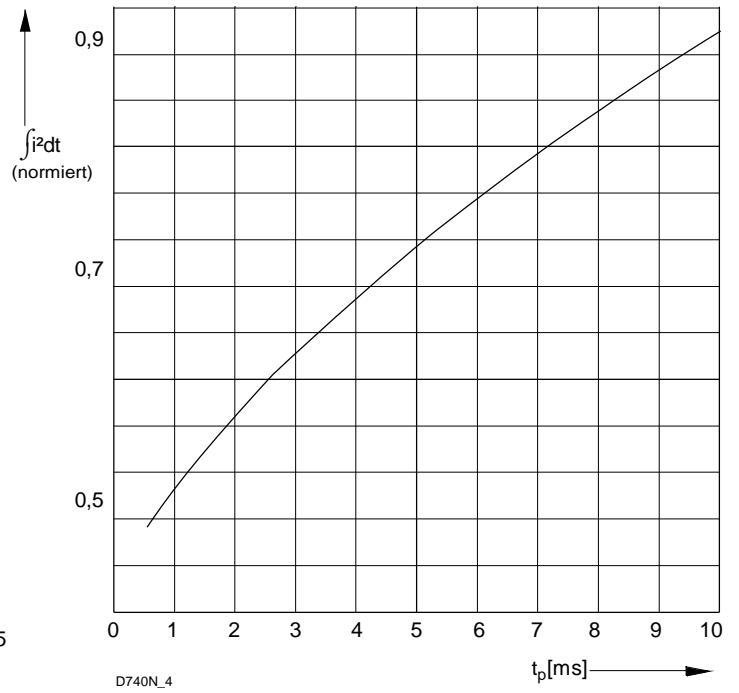


D 740 N



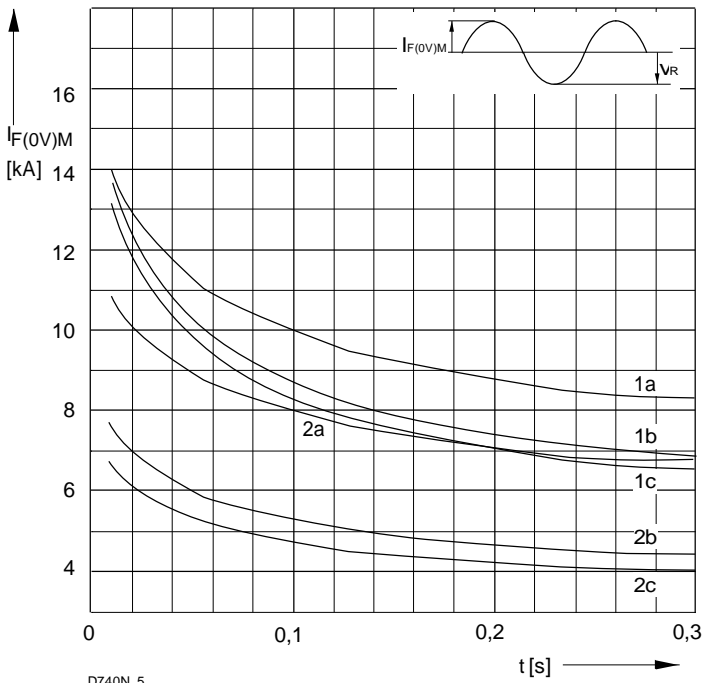
D740N_1

Bild/ Fig. 1
Grenzdurchlaßkennlinie
Limiting forward characteristic $i_F = f(v_F)$
— $t_j = 160\text{ °C}$
- - - $t_j = 25\text{ °C}$



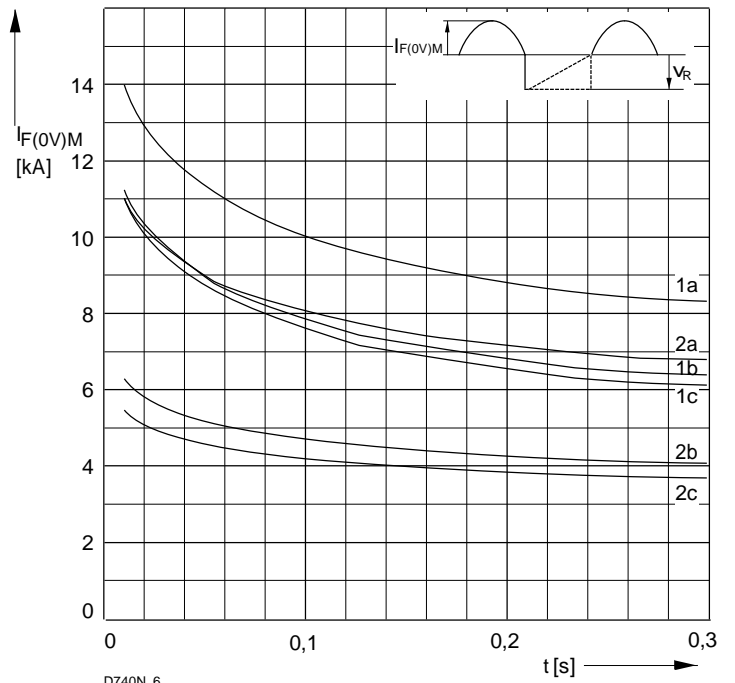
D740N_4

Bild / Fig. 2
Normiertes Grenzlastintegral / Normalized i^2t
 $\int i^2 dt = f(t_p)$



D740N_5

Bild / Fig. 3
Grenzstrom / Maximum overload forward current $I_{F(0V)M} = f(t)$
1 - $I_{FAV(vor)} = 0\text{ A}$; $t_j = t_c = 25\text{ °C}$
2 - $I_{FAV(vor)} = 750\text{ A}$; $t_c = 100\text{ °C}$; $t_j = 160\text{ °C}$
a - $v_R \leq 50\text{ V}$
b - $v_R = 0,5 V_{RRM}$
c - $v_R = 0,8 V_{RRM}$



D740N_6

Bild / Fig. 4
Grenzstrom / Maximum overload forward current $I_{F(0V)M} = f(t)$
1 - $I_{FAV(vor)} = 0\text{ A}$; $t_j = t_c = 25\text{ °C}$
2 - $I_{FAV(vor)} = 750\text{ A}$; $t_c = 100\text{ °C}$; $t_j = 160\text{ °C}$
a - $v_R \leq 50\text{ V}$
b - $v_R = 0,5 V_{RRM}$
c - $v_R = 0,8 V_{RRM}$

D 740 N

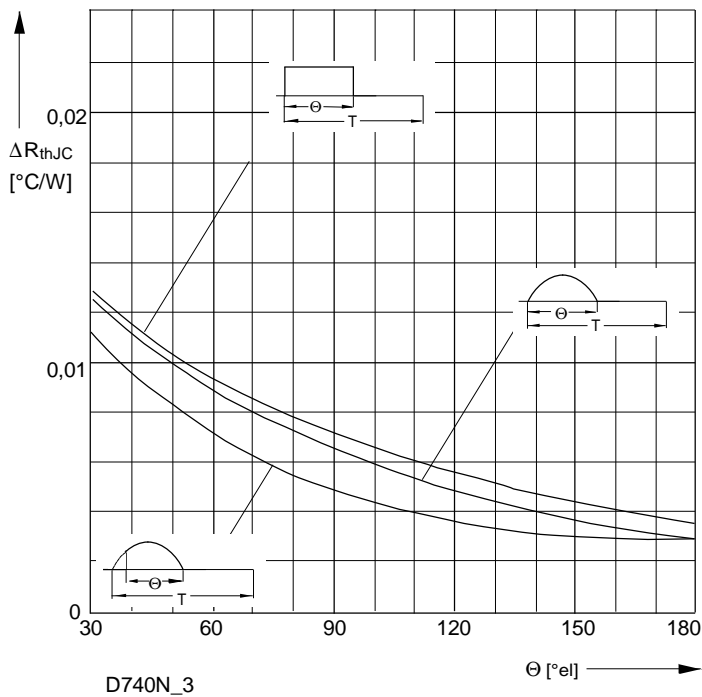


Bild / Fig. 5
 Differenz zwischen den Wärmewiderständen für Pulsstrom und DC
 Difference between the values of thermal resistance for pulse current and DC
 Parameter: Stromkurvenform / Current waveform

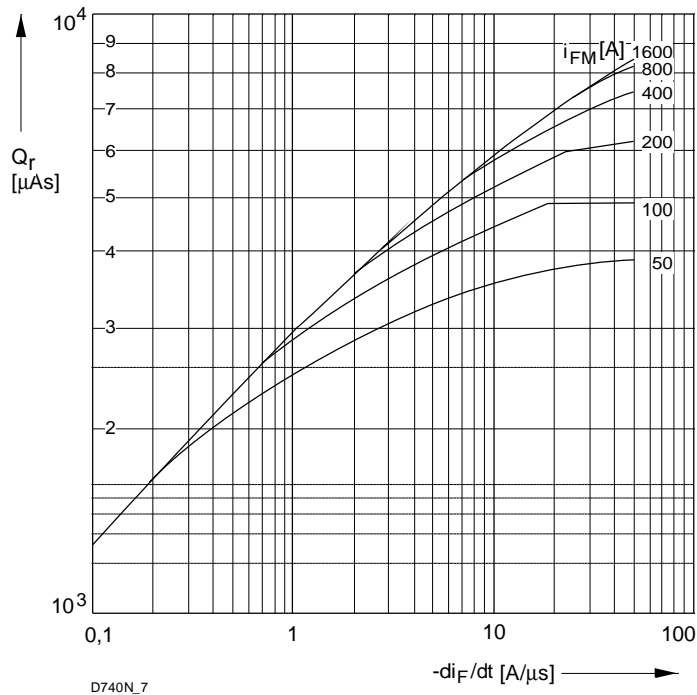


Bild / Fig. 6
 Sperrverzögerungsladung / Recovered charge $Q_r = f(-di_F/dt)$
 $t_{vj} = t_{vjmax}$; $V_R \leq 0,5 V_{RRM}$; $V_{RM} = 0,8 V_{RRM}$
 Beschaltung / Snubber: $C = 1 \mu F$; $R = 3,9 \Omega$
 Parameter: Durchlaßstrom / Forward current i_{FM}

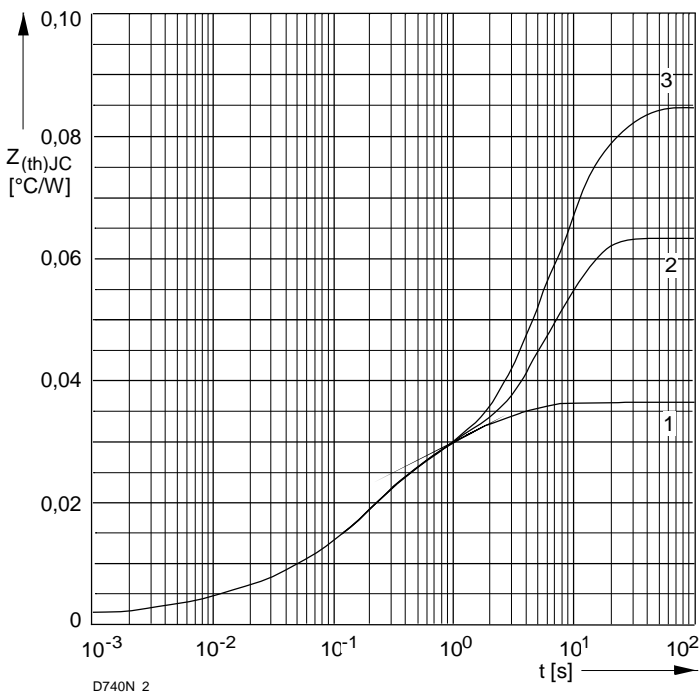


Bild / Fig. 7
 Transienter innerer Wärmewiderstand
 Transient thermal impedance $Z_{thJC} = f(t)$, DC
 1 - Beidseitige Kühlung / Two-sided cooling
 2 - Anodenseitige Kühlung / Anode-sided cooling
 3 - Kathodenseitige Kühlung / Cathode-sided cooling

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

Kühlg. Cooling	Pos. n	1	2	3	4	5	6	7
1	R_{thn} °C/W	0,000950	0,005110	0,01574	0,0142			
	τ_n [s]	0,001470	0,01120	0,1740	1,31			
2	R_{thn} °C/W	0,000910	0,004690	0,01790	0,03950			
	τ_n [s]	0,001460	0,00985	0,1740	6,360			
3	R_{thn} °C/W	0,00810	0,004440	0,01680	0,00750	0,05445		
	τ_n [s]	0,001380	0,00877	0,1570	4,11	8,38		

- 1 - Beidseitige Kühlung / Two-sided cooling
- 2 - Anodenseitige Kühlung / Anode-sided cooling
- 3 - Kathodenseitige Kühlung / Cathode-sided cooling

Analytische Funktion / Analytical function

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