

MDT 760



Capsule Thyristor

Line Thyristor

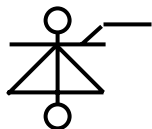
MDT 760

Features

- Hermetic metal case with ceramic insulator
- Capsule package for double sided cooling
- International standard case
- Off-state and reverse voltages up to 2000 V

Typical Applications

- DC motor control
(e. g. for machine tools)
- Controlled rectifiers
(e. g. for battery charging)
- AC controllers
(e. g. for temperature control)



MDT

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 1600$ A (maximum value for continuous operation) $I_{TAV} = 760$ A (sin. 180; DSC; $T_c = 80^\circ\text{C}$)
1500	1400	MDT 760/14E
1700	1600	MDT 760/16E
1900	1800	MDT 760/18E
2100	2000	MDT 760/20E

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85^\circ\text{C}$	696	A
I_{TSM}	$T_c = 125^\circ\text{C}$; 10 ms; $V_{rrm} = 0.6V_{RRM}$	13000	A
i^2t	$T_{vj} = 125^\circ\text{C}$; 10 ms; $V_{rrm} = 0.6V_{RRM}$	845000	A^2s
V_T	$T_{vj} = 25^\circ\text{C}$;	1.65	V
$V_{T(TO)}$	$T_{vj} = 125^\circ\text{C}$	0.92	V
r_T	$T_{vj} = 125^\circ\text{C}$	0.30	$\text{m}\Omega$
I_{DD}, I_{RD}	$T_{vj} = 125^\circ\text{C}$; $V_{RD} = V_{RRM}$; $V_{DD} = V_{DRM}$	80	mA
t_{gd}	$T_{vj} = 25^\circ\text{C}$; $I_G = 2\text{A}$; $di/dt = 10\text{A}/\mu\text{s}$	1.0	μs
t_{gr}	$V_D = 0.6 * V_{DRM}$	2.0	μs
$(di/dt)_{cr}$	$T_{vj} = 125^\circ\text{C}$; $I_{FG} = 2\text{A}$; $t_r \leq 0.5\mu\text{s}$	125	$\text{A}/\mu\text{s}$
$(dv/dt)_{cr}$	$T_{vj} = 125^\circ\text{C}$	1000	$\text{V}/\mu\text{s}$
t_q	$T_{vj} = 125^\circ\text{C}$	100 to 200	μs
I_H	$T_{vj} = 25^\circ\text{C}$	150	mA
V_{GT}	$T_{vj} = 25^\circ\text{C}$; d.c.	3.0	V
I_{GT}	$T_{vj} = 25^\circ\text{C}$; d.c.	200	mA
V_{GD}	$T_{vj} = 125^\circ\text{C}$; d.c.	0.25	V
$R_{th(j-c)}$	cont; DSC	0.038	K/W
$R_{th(j-c)}$	sin. 180; DSC/SSC	0.04 / 0.082	K/W
$R_{th(j-c)}$	rec. 120; DSC/SSC	0.045 / 0.093	K/W
$R_{th(c-s)}$	DSC/SSC	0.007 / 0.014	K/W
T_{vj}		-40 to +125	$^\circ\text{C}$
T_{stg}		-40 to +130	$^\circ\text{C}$
V_{isol}		-	V~
F	mounting force	10 to 13	kN
a			m/s^2
m	approx.	240	g

