MDS600.18

Diode module

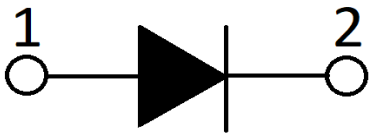


Features:

- International standard package
- Low forward voltage drop
- Isolation voltage 3000V ~
- Simple mounting
- UL recognized, file no. E312789

Typical applications:

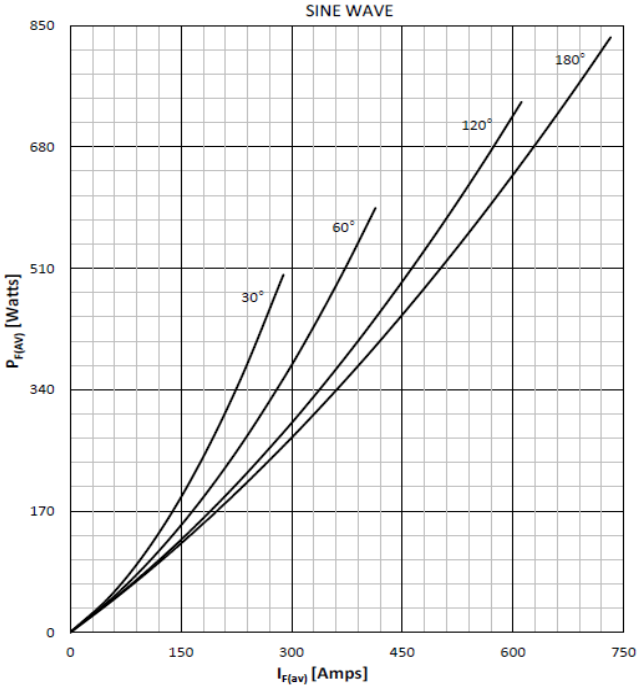
- Various rectifier power
- AC/DC motor control
- Heater control
- Frequency converters



Symbol	Characteristcs	Test Conditions	Value			Unit
			Min	Typ	Max	
$V_{RSM/DSM}$	Non-repetitive reverse/forward blocking voltage	Tj = 150°C			1900	V
$V_{RRM/DRM}$	Repetitive reverse/forward blocking voltage	Tj = 150°C			1800	V
$I_{F(AV)}$	Forward average current	180° half sine wave 50Hz T_c = 100°C (84°C)			600(735)	A
$I_{F(RMS)}$	Forward square root current	180° half sine wave 50Hz T_c = 100 °C			1150	A
I_{RRM} I_{DRM}	Repetitive peak current	at V_{DRM}/V_{RRM} Tj = 150°C			40	mA
I_{FSM}	Forward surge current	10ms half sine wave, Tj = 25°C			22000	A
I^2t	I^2t for fusing coordination	Without reverse Voltage, Tj = 25°C			2420000	A^2s
V_{FO}	Threshold voltage	Tj = 150°C			0.75	V
r_T	Forward slope resistance	Tj = 150°C			0.215	mΩ
V_{FM}	Peak forward voltage	Tj=25°C ; I_T=2200A			1.40	V
$R_{th(j-c)}$	Thermal resistance junction to case	Single side cooled per chip			0,078	°C/W
$R_{th(c-s)}$	Thermal resistance case to sink	Single side cooled per chip			0.02	°C/W
V_{ISO}	Isolation voltage	50Hz, RMS, t = 1min	3000			V
F_M	Mounting torque - copper plate (M5)		4.5		6.0	N·m
	Mounting torque - terminal (M10)		11.0		14.0	N·m
T_{stg}	Storage Temperature		-40		150	°C
T_j	Operating Temperature		-40		150	°C
W_t	Weight			900		g
Outline	B0					

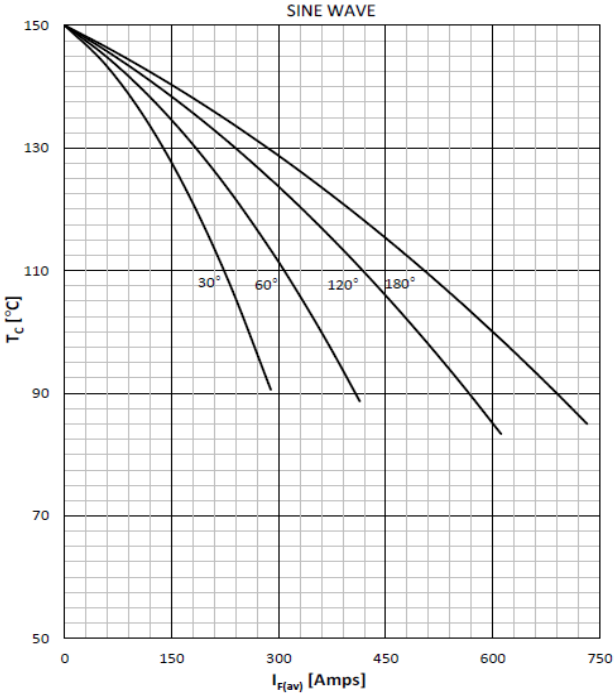
DISSIPATION CHARACTERISTICS

SINE WAVE



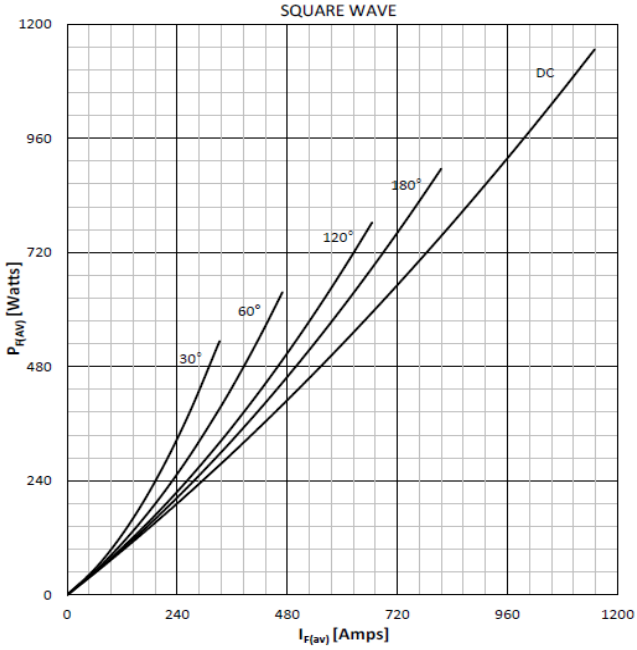
FORWARD CURRENT DERATING CURVE

SINE WAVE



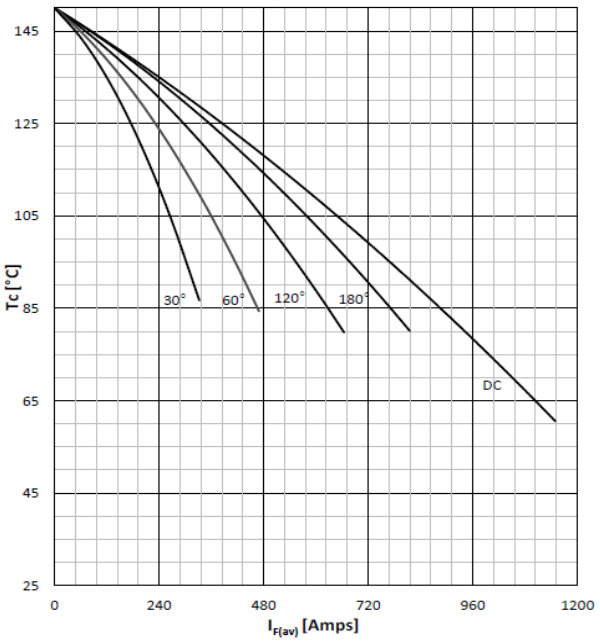
DISSIPATION CHARACTERISTICS

SQUARE WAVE



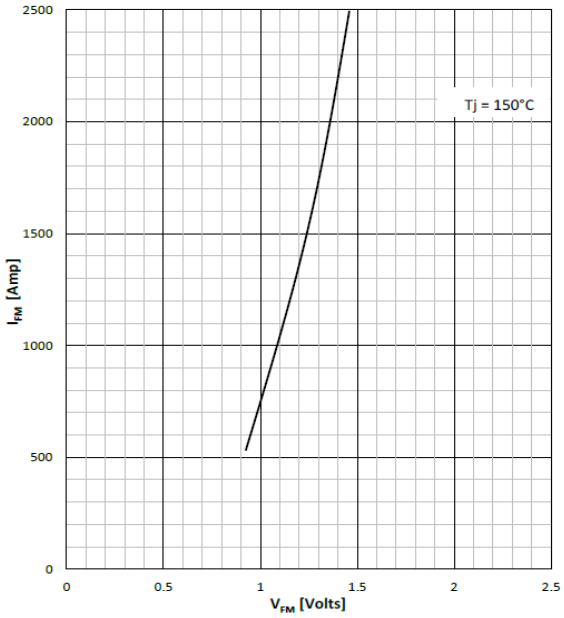
FORWARD CURRENT DERATING CURVE

SQUARE WAVE

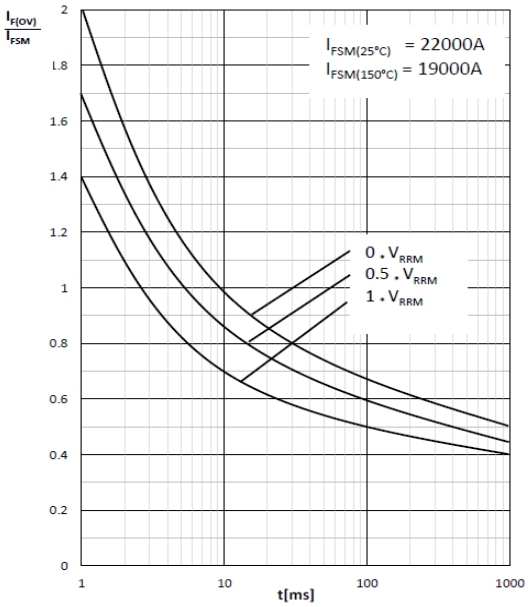


MDS600.18

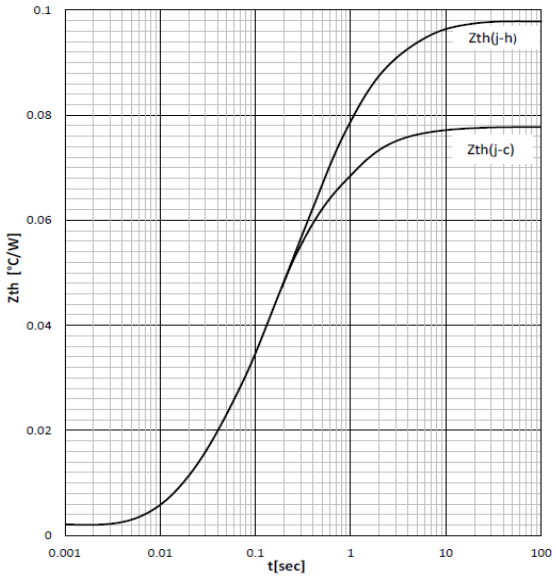
FORWARD CHARACTERISTIC

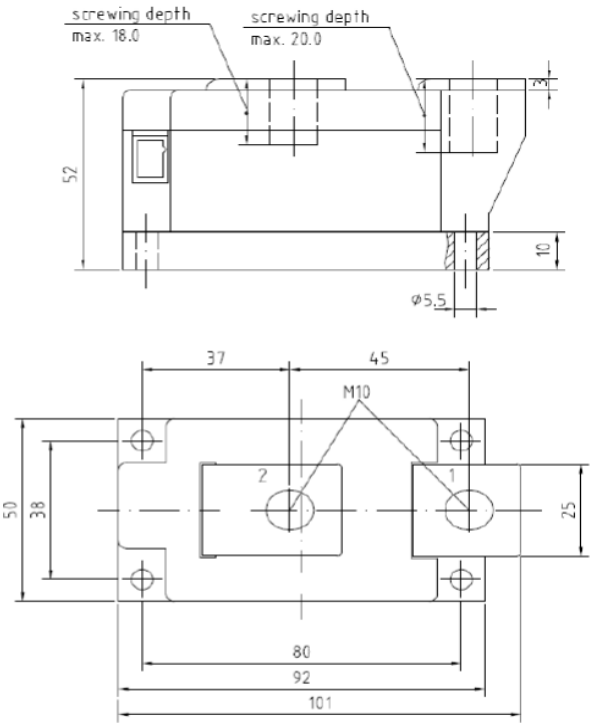


SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE





(dimensions in mm)

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