MS DF914

Key Parameters

V_{RRM}	= 2600V
$I_{F(AV)}$	= 914A
I_{FSM}	= 10.5kA
$V_{F(TO)}$	= 1.768V
r_F	= 0.653mΩ

Features

- Full blocking capability over wide temperature range
- Fast recovery characteristics
- Hermetically sealed ceramic package
- High case non-rupture current

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Freewheeling / Snubber
- Induction Heating / Melting

Ordering Information

MS DF	914	C	X X
Fast Recovery Diode	Current code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS DF914C26 : 2600V V_{RRM}, Fast recovery capsule Diode			

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MS DF914

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		150	2200 - 2600	V
V_{RSM}	Non-repetitive peak reverse voltage		150	2300 - 2700	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	150	50	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin,50 Hz, T_c=70°C , double side cooled		914	A
I_{FRMS}	RMS current	T_c=70°C , double side cooled		1435	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	10500	A
			150	9400	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	551 x 10^3	A^2s
			150	442 x 10^3	A^2s
V_F	Forward voltage	On-state current = 1800A	150	3.0	V
$V_{F(TO)}$	Threshold voltage		150	1.768	V
r_F	Forward slope resistance		150	0.653	mΩ
SWITCHING					
Q_{rr}	Recovered Charge (typical)	I_{FM}=1000A, $-di_F/dt$ = 60A/µs, V_r = 50V, t_p=1000 µs,50% chord.	150	300	µC
I_{rm}	Reverse recovery current (typical)		150	110	A
T_{rr}	Reverse recovery time, 50%chord (typical)		150	3.2	µs
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, double side cooled		0.027	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, double side cooled		0.005	°C/W
T_j	Max. junction temperature			150	°C
T_{stg}	Storage temperature			-40 150	°C
M	Clamping force			10 - 20	NM
W	Weight (Approx.)			350	gm

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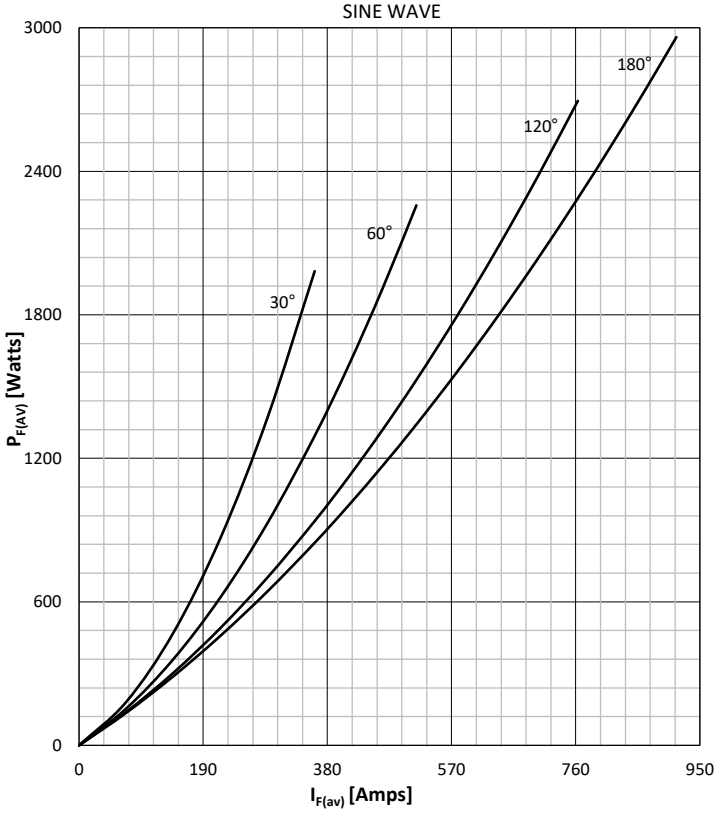
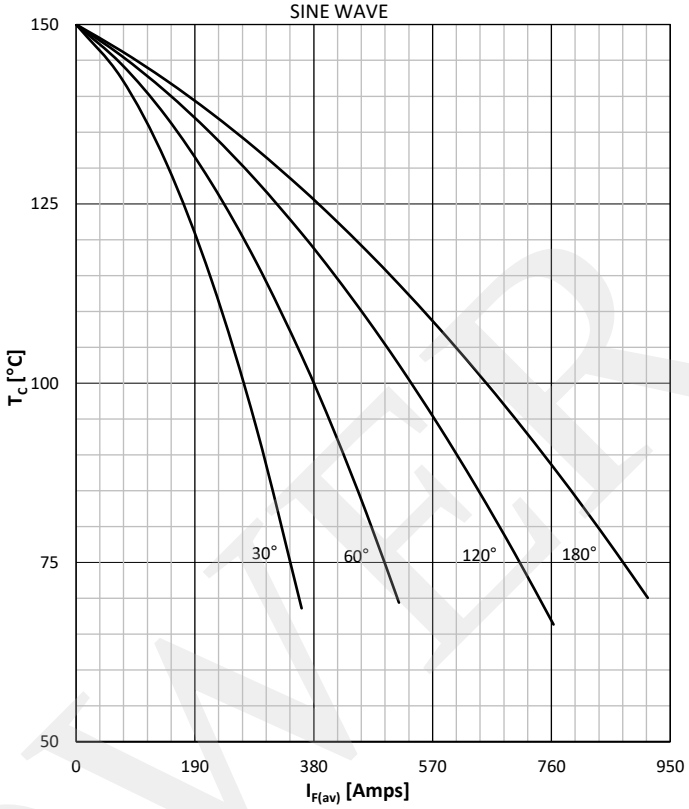
DISSIPATION CHARACTERISTICS

SINE WAVE



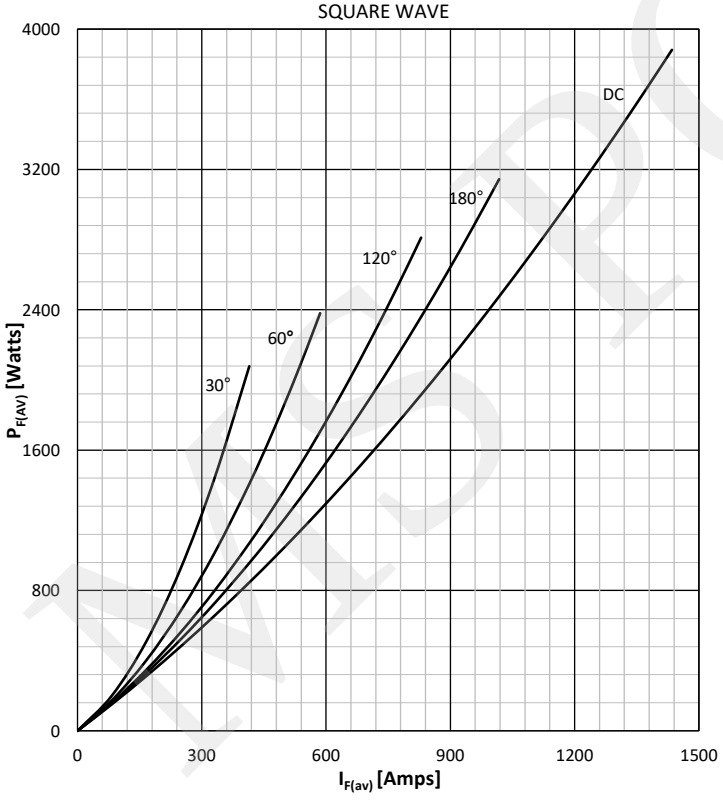
FORWARD CURRENT DERATING CURVE

SINE WAVE



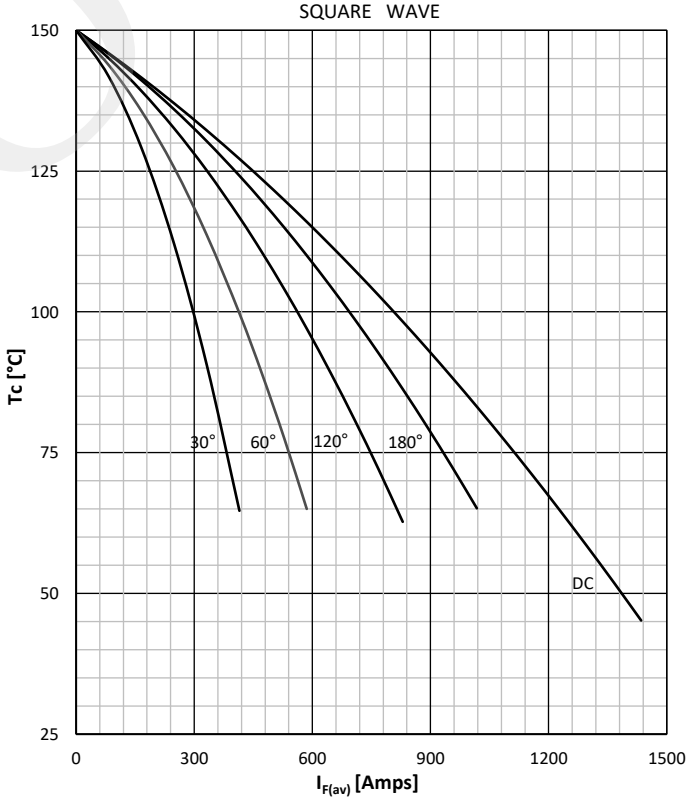
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



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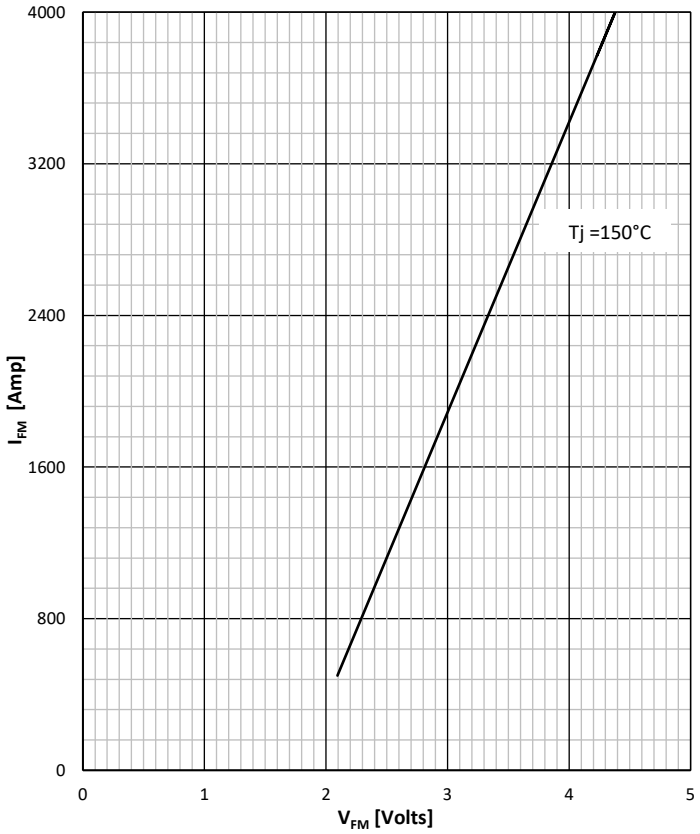
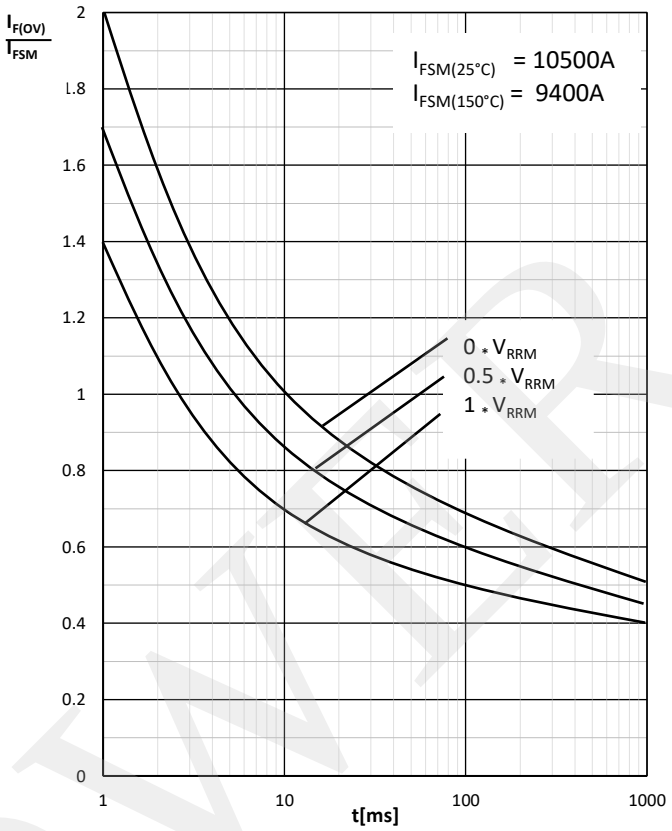
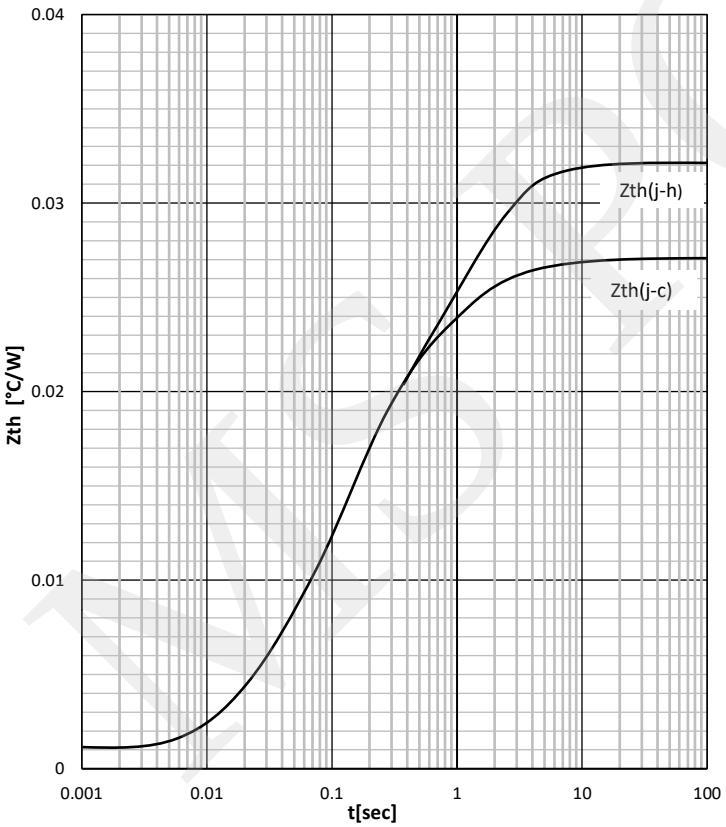
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



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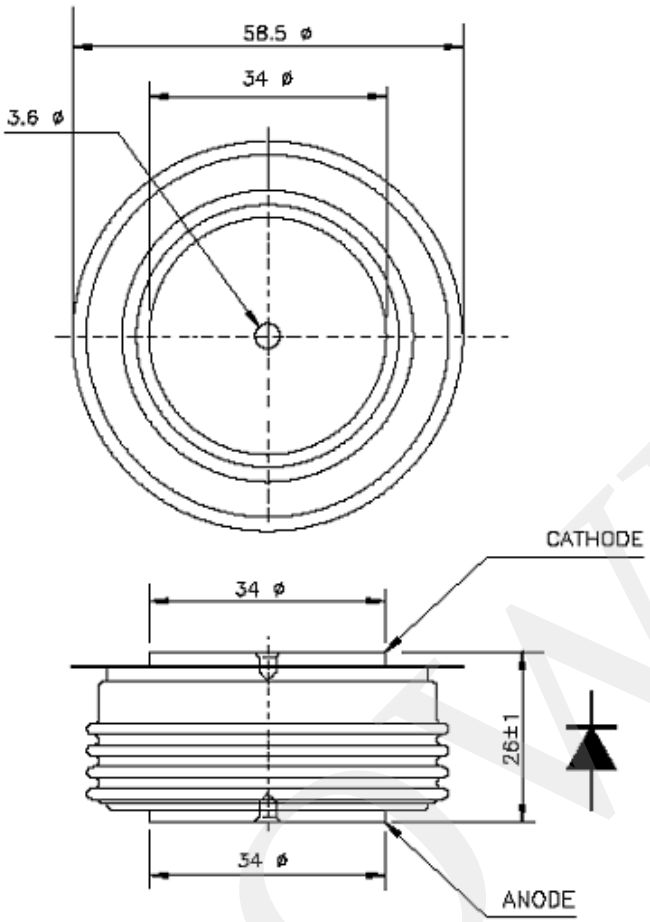
Outline



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