MS D214

Key Parameters

V_{RRM}	= 1600V
$I_{F(AV)}$	= 214A
I_{FSM}	= 4400A
$V_{F(TO)}$	= 0.85V
r_F	= 0.60mΩ

Features

- Full blocking capability over wide temperature range
- Hermetic metal case with glass insulator
- Flat round base

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Battery Chargers

Ordering Information

MS D	214	N	X X	F	B
Rectifier Diode	Current code	Polarity R= Base Anode N= Base Cathode	Voltage Code Code X 100 = V_{RRM}	F = Flat Base	Technology B = Solder Bond Technology
Order Code MS D214N16FB : 1600V V_{RRM}, Flat Base, Diode with base Cathode					

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Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		180	200 - 1600	V
V_{RSM}	Non-repetitive peak reverse voltage		180	300 - 1700	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	180	30	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, T_c=125°C 180° sin ,50 Hz, T_c=130°C		214 200	A
I_{FRMS}	RMS current	T_c=125°C		336	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	4400	A
			180	4000	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	96800	A^2s
			180	80000	A^2s
V_F	Forward voltage	On-state current = 630A	180	1.25	V
$V_{F(TO)}$	Threshold voltage		180	0.85	V
r_F	Forward slope resistance		180	0.60	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case		0.22	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink		0.05	°C/W
T_j	Max. junction temperature			180	°C
T_{stg}	Storage temperature			-40 180	°C
M	Mounting torque			13 - 14	NM
W	Weight (Approx.)			160	gm

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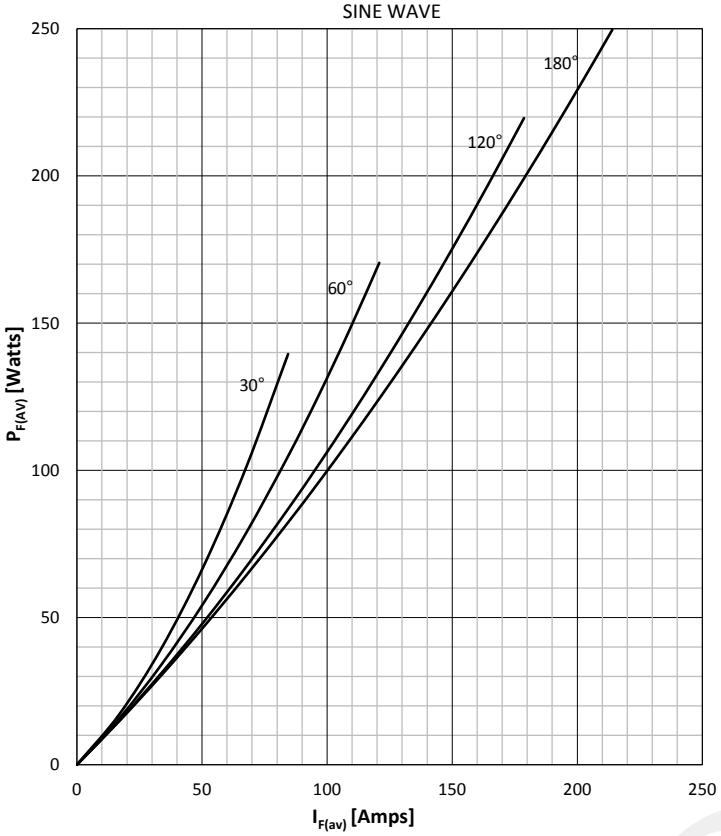
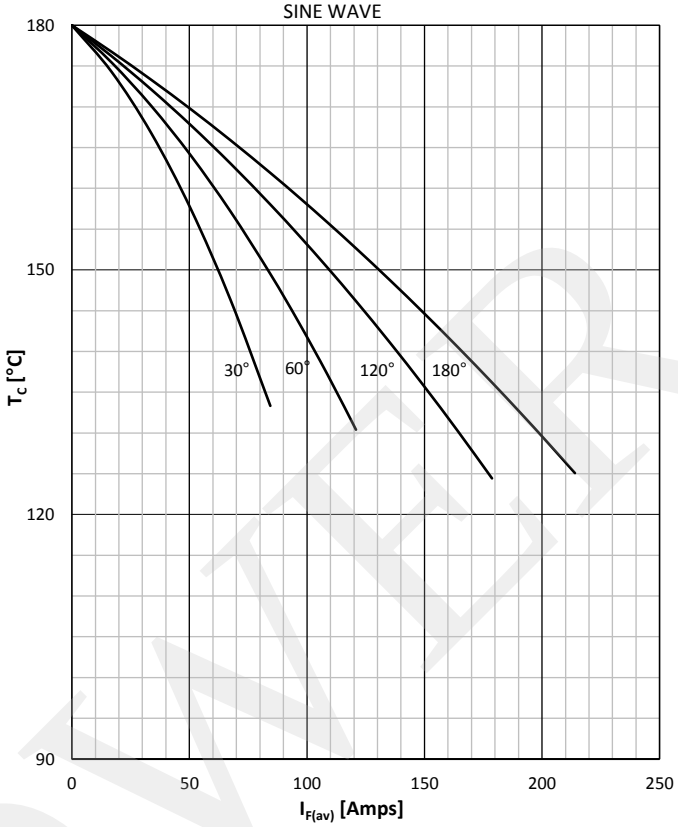
DISSIPATION CHARACTERISTICS

SINE WAVE



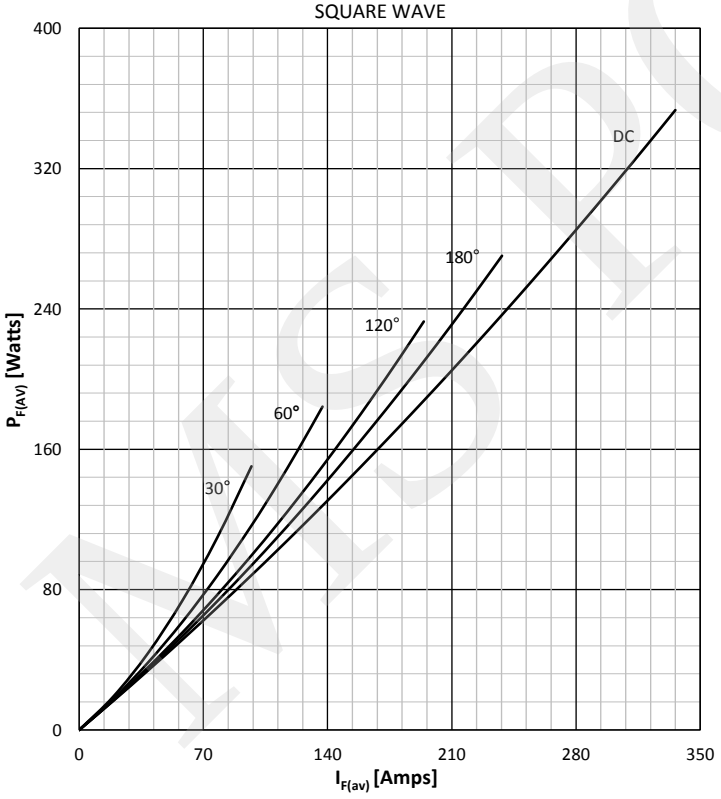
FORWARD CURRENT DERATING CURVE

SINE WAVE



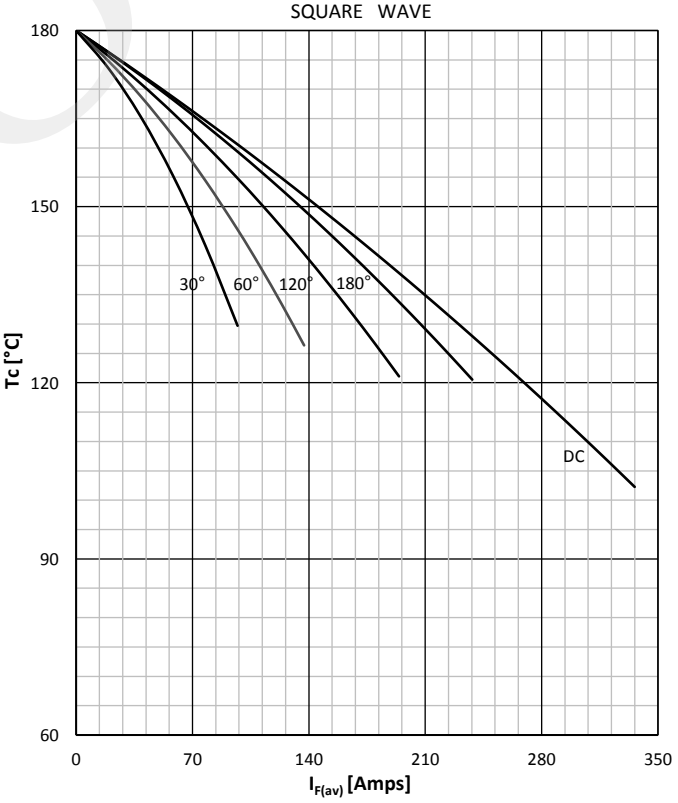
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



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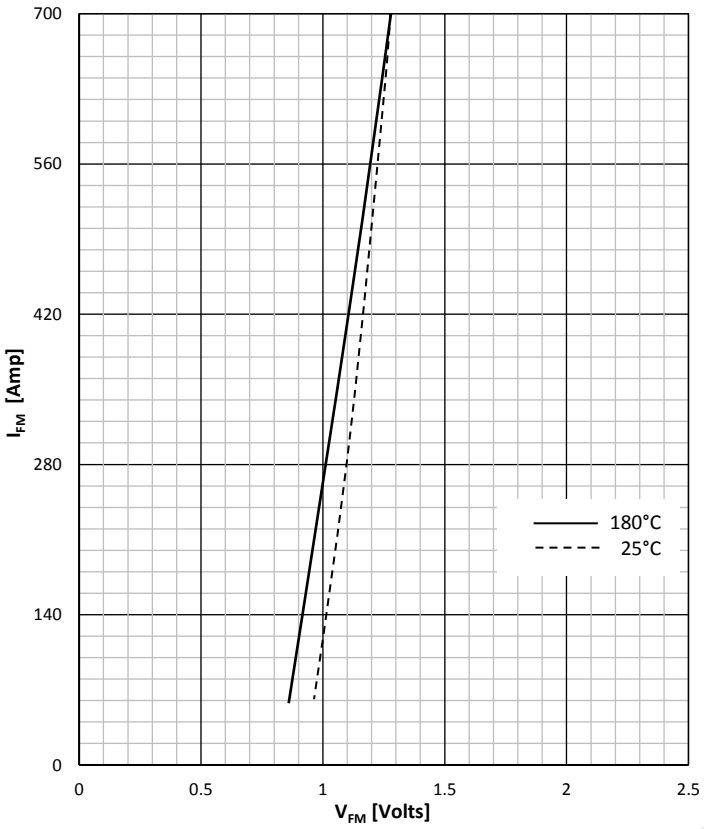
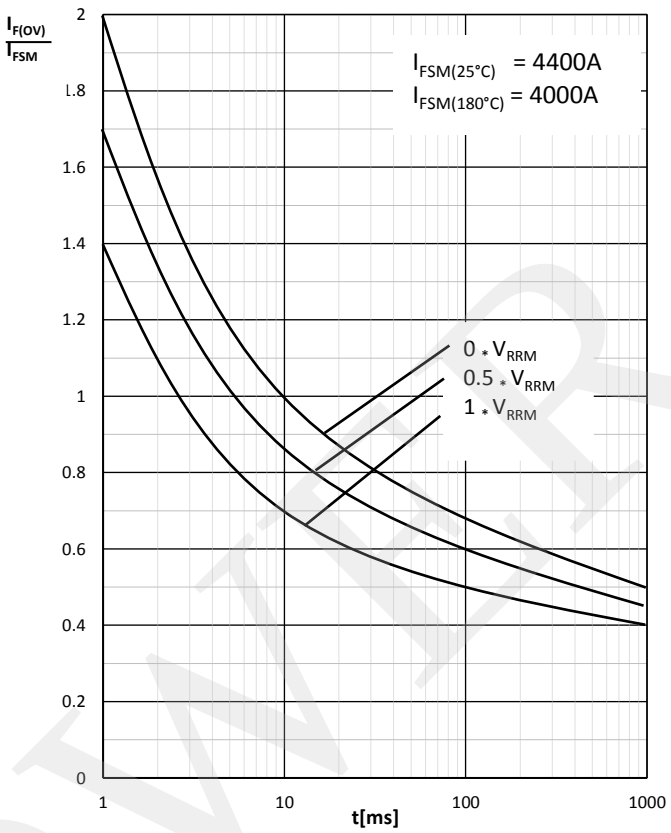
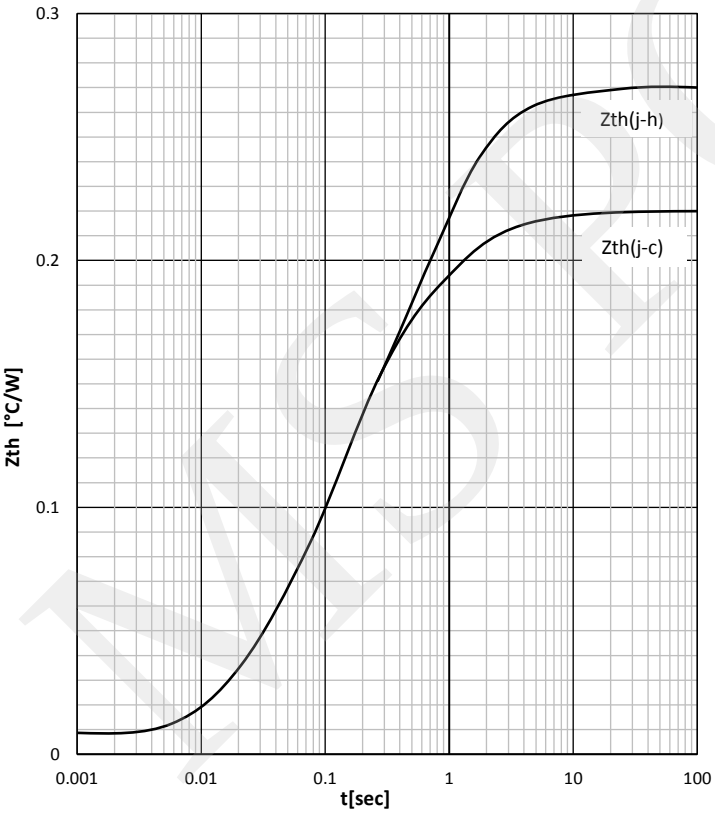
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



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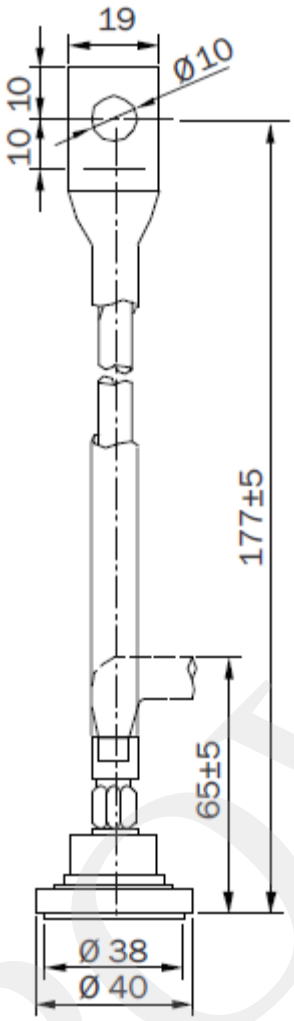
Outline



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