



A1A:350.XX

VOLTAGE RATINGS

Part Number	V_{RRM}, V_R (V) Max. rep. peak reverse voltage		V_{RSM}, V_R (V) Max. non- rep. peak reverse voltage
	$T_J = 0$ to 180°C	$T_J = -40$ to 0°C	
	$T_J = 25$ to 180°C		
A1A:350.02	200	200	300
A1A:350.04	400	400	500
A1A:350.06	600	600	700
A1A:350.08	800	800	900
A1A:350.10	1000	1000	1100
A1A:350.12	1200	1200	1300
A1A:350.14	1400	1400	1500
A1A:350.16	1600	1600	1700

This datasheet applies to:

**Metric thread: A1A:350.XX,
A1B:350.XX**

**Inch thread: A2A:350.XX,
A2B:350.XX**

MAXIMUM ALLOWABLE RATINGS

PARAMETER	VALUE	UNITS	NOTES
T_J Junction Temperature	-40 to 180	°C	-
T_{stg} Storage Temperature	-40 to 180	°C	-
$I_{F(AV)}$ Max. Av. current @ Max. T_C	350	A	180° half sine wave
	125	°C	
$I_{F(RMS)}$ Nom. RMS current	700	A	-
I_{FSM} Max. Peak non-rep. surge current	7798	A	50 Hz half cycle sine wave Initial $T_J = 180^\circ\text{C}$, rated V_{RRM} applied after surge.
	8500		60 Hz half cycle sine wave
	9275		50 Hz half cycle sine wave Initial $T_J = 180^\circ\text{C}$, no voltage applied after surge.
	10110		60 Hz half cycle sine wave
I^2t Max. I^2t capability	276	kA^2s	$t = 10\text{ms}$ Initial $T_J = 180^\circ\text{C}$, rated V_{RRM} applied after surge.
	301		$t = 8.3\text{ms}$
	391		$t = 10\text{ms}$ Initial $T_J = 180^\circ\text{C}$, no voltage applied after surge.
	426		$t = 8.3\text{ms}$
$I^2t^{1/2}$ Max. $I^2t^{1/2}$ capability	3200	$\text{kA}^2\text{s}^{1/2}$	Initial $T_J = 180^\circ\text{C}$, no voltage applied after surge. I^2t for time $t_x = I^2t^{1/2} * t_x^{1/2}$. ($0.1 < t_x < 10\text{ms}$).
F Mounting Force	60(~534)	N.m(Lbf.in)	-



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CHARACTERISTICS

PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
V_{FM} Peak forward voltage	---	---	1.42	V	Initial $T_J = 25\text{ }^\circ\text{C}$, sinusoidal wave, $I_{peak} = 1100\text{A}$.
$V_{F(TO)}$ Threshold voltage	---	---	0.82	V	$T_J = 180\text{ }^\circ\text{C}$, Av. Power = $V_{F(TO)} * I_{F(AV)} + r_F * [I_{F(RMS)}]^2$, sine.
r_F Forward slope resistance	---	---	0.25	m	Use low values for $I_{FM} < I_{F(AV)}$
I_{RM} Peak reverse current	---	---	30.00	mA	$T_J = 180\text{ }^\circ\text{C}$. Max. Rated V_{RRM}
R_{thJC} Thermal resistance, junction-to-case	---	---	0.15	$^\circ\text{C/W}$	DC operation
	---	---	0.17	$^\circ\text{C/W}$	180° sine wave
	---	---	0.19	$^\circ\text{C/W}$	120° rectangular wave
R_{thCS} Thermal resistance, case-to-sink	---	---	0.015	$^\circ\text{C/W}$	Mtg. Surface smooth, flat and greased. Single side.
wt Weight	---	500(17.5)	---	g(oz.)	---
Case Style	DO-205AD (DO-13)		JEDEC		---

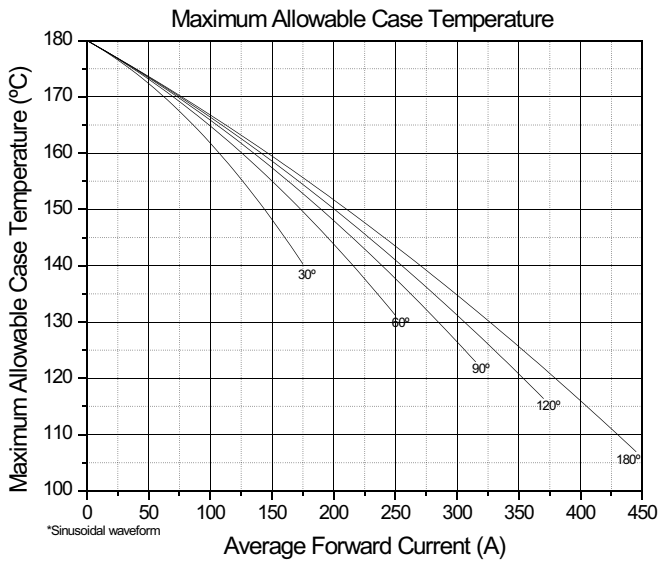


Fig. 1 - Current Ratings Characteristics

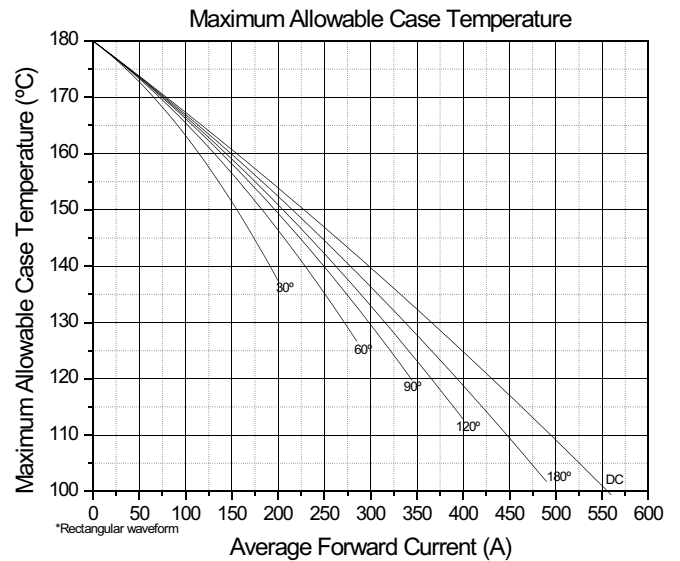


Fig. 2 - Current Ratings Characteristics



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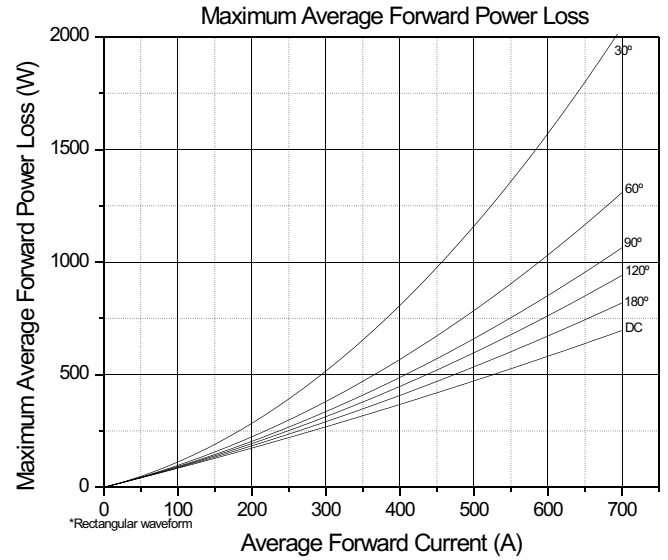
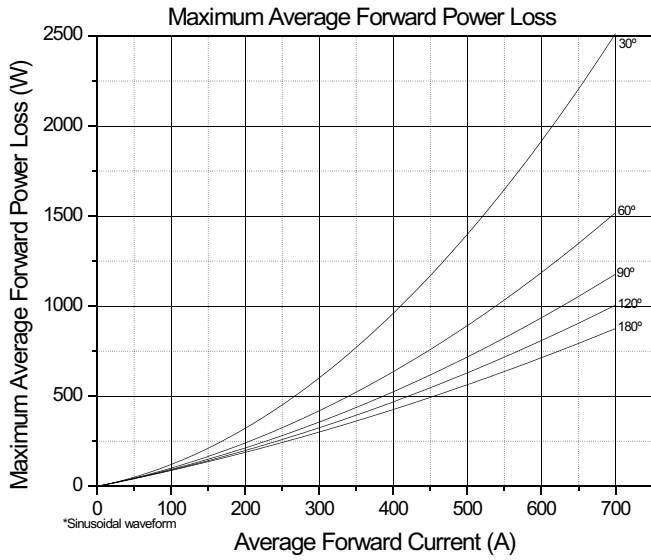


Fig. 3 - On-State Power Loss Characteristics

Fig. 4 - On-State Power Loss Characteristics

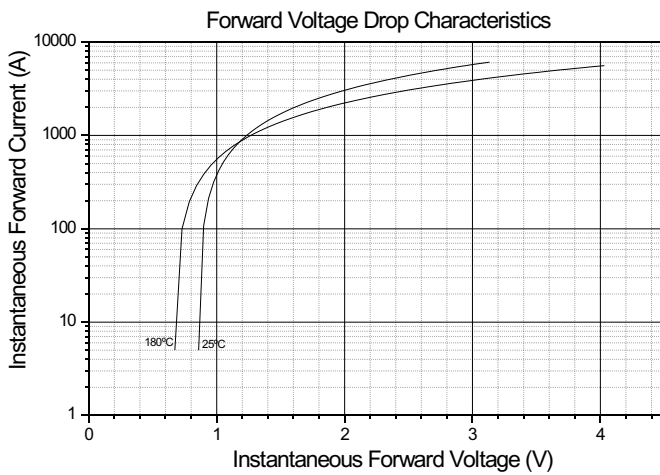


Fig. 5 - Forward Voltage Drop Characteristics

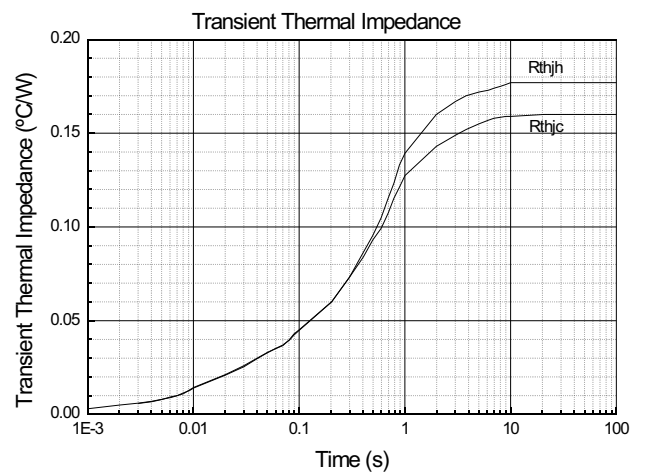


Fig. 6 - Transient Thermal Impedance Characteristics



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DO-205AD (DO-13)

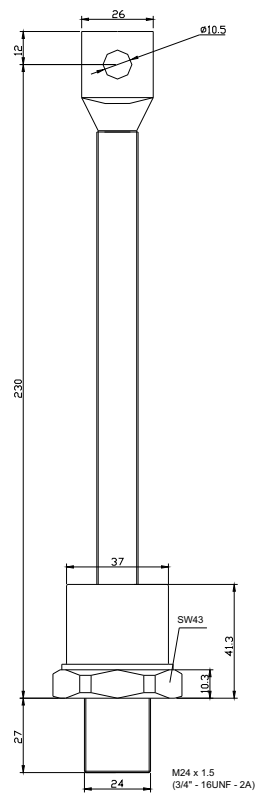


Fig. 7 - Outline Characteristics