AEGIS
SEMICONDUTORES LTDA.

A1A:340.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 175°C	T_J = -40 to 0°C	T_J = 25 to 175°C
A1A:340.02	200	200	300
A1A:340.04	400	400	500
A1A:340.06	600	600	700
A1A:340.08	800	800	900
A1A:340.10	1000	1000	1100
A1A:340.12	1200	1200	1300
A1A:340.14	1400	1400	1500
A1A:340.16	1600	1600	1700

This datasheet applies to:

Metric thread: A1A:340.XX, A1B:340.XX

Inch thread: A2A:340.XX, A2B:340.XX

MAXIMUM ALLOWABLE RATINGS

PARAMETER	VALUE	UNITS	NOTES
T_J Junction Temperature	-40 to 175	°C	-
T_{stg} Storage Temperature	-40 to 175	°C	-
$I_{F(AV)}$ Max. Av. current	340	A	180° half sine wave
$I_{F(AV)}$ @ Max. T_C	150	°C	180° half sine wave
$I_{F(RMS)}$ Nom. RMS current	700	A	-
I_{FSM} Max. Peak non-rep. surge current	7798	A	50 Hz half cycle sine wave; Initial T_J = 175°C, rated V_{RRM} applied after surge.
	8500		60 Hz half cycle sine wave; Initial T_J = 175°C, rated V_{RRM} applied after surge.
	9275		50 Hz half cycle sine wave; Initial T_J = 175°C, no voltage applied after surge.
	10110		60 Hz half cycle sine wave; Initial T_J = 175°C, no voltage applied after surge.
I^2t Max. I^2t capability	276	kA^2s	t = 10ms; Initial T_J = 175°C, rated V_{RRM} applied after surge.
	301		t = 8.3 ms; Initial T_J = 175°C, rated V_{RRM} applied after surge.
	391		t = 10ms; Initial T_J = 175°C, no voltage applied after surge.
	426		t = 8.3 ms; Initial T_J = 175°C, no voltage applied after surge.
$I^2t^{1/2}$ Max. $I^2t^{1/2}$ capability	3200	$kA^2s^{1/2}$	Initial T_J = 175°C, no voltage applied after surge. I^2t for time $t_x = I^2t^{1/2} * t_x^{1/2}$. (0.1 < tx < 10ms).
F Mounting Force	30(~267)	N.m(Lbf.in)	-

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CHARACTERISTICS

PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
V_{FM} Peak forward voltage	---	1.15	1.37	V	Initial T_J = 25°C, sinusoidal wave, I_{peak} = 1068A.
$V_{F(TO)}$ Threshold voltage	---	---	0.97	V	T_J = 175°C, Av. Power = $V_{F(TO)}$*$I_{F(AV)}$+r_F*[$I_{F(RMS)}$]^2, sine.
r_F Forward slope resistance	---	---	0.32	m	Use low values for I_{FM} < $I_{F(AV)}$
I_{RM} Peak reverse current	---	---	30.00	mA	T_J = 175°C. Max. Rated V_{RRM}
R_{thJC} Thermal resistance, junction-to-case	---	---	0.15	°C/W	DC operation
	---	---	0.17	°C/W	180° sine wave
	---	---	0.19	°C/W	120° rectangular wave
R_{thCS} Thermal resistance, case-to-sink	---	---	0.03	°C/W	Mtg. Surface smooth, flat and greased. Single side.
wt Weight	---	250(8.75)	---	g(oz.)	---
Case Style	DO-205AB (DO-9)			JEDEC	---

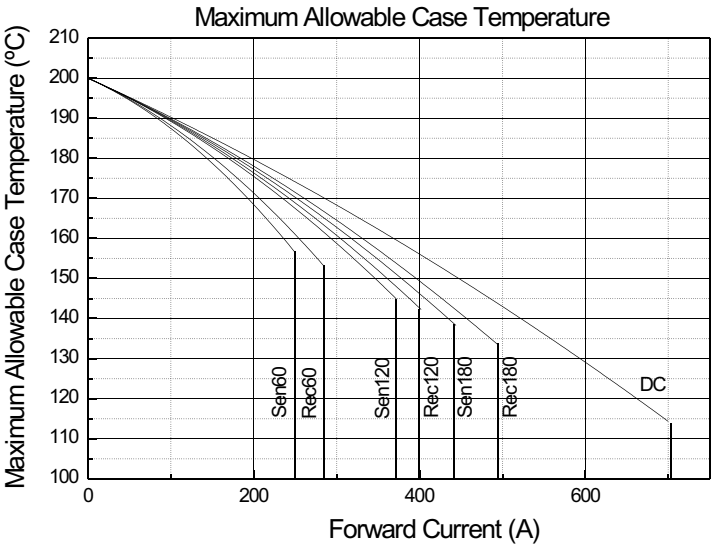

Fig. 1 - Current Ratings Characteristics

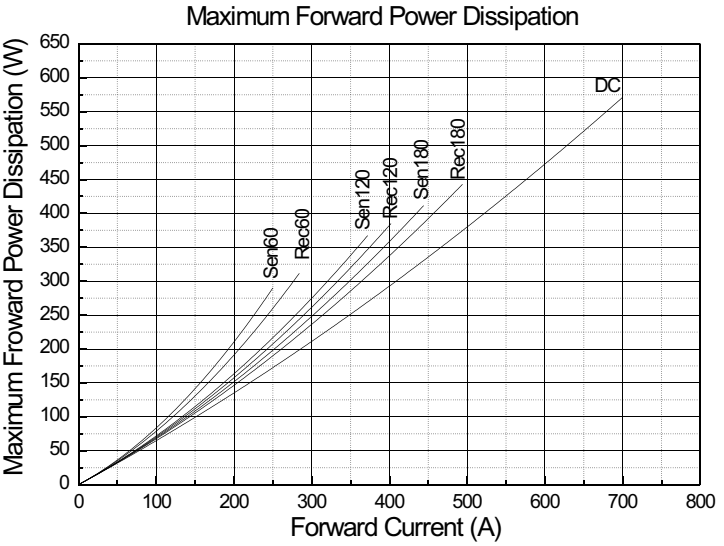

Fig. 2 - Forward Power Loss Characteristics

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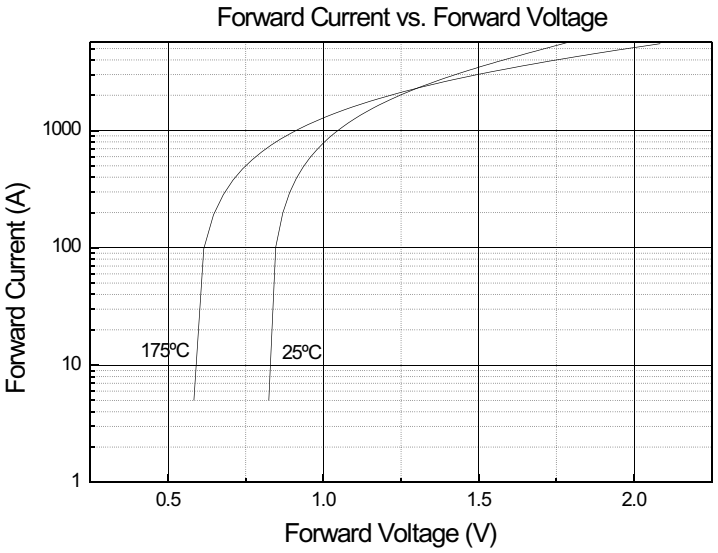

Fig. 3 - Forward Voltage Drop Characteristics

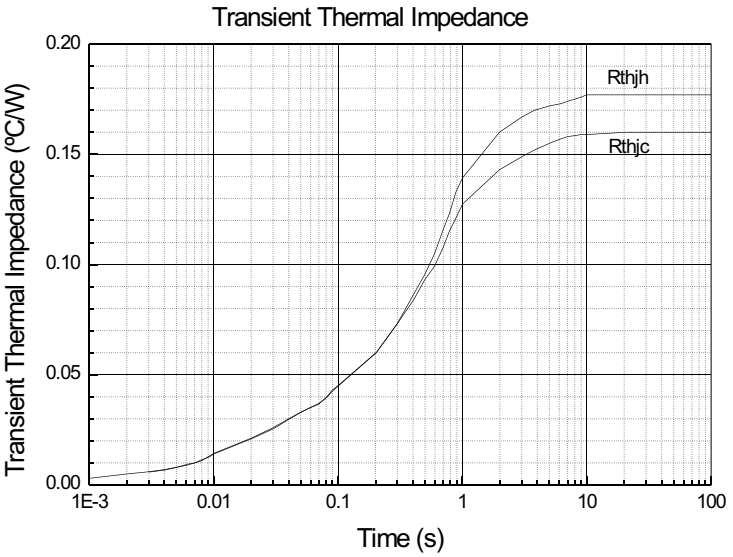

Fig. 4 - Transient Thermal Impedance Characteristics

DO-205AB (DO-9)