



A1A:260.XX

VOLTAGE RATINGS

Part Number	V_{RRM}, V_R (V)		V_{RSM}, V_R (V) Max. non-rep. peak reverse voltage
	Max. rep. peak reverse voltage		
	$T_J = 0$ to 180°C	$T_J = -40$ to 0°C	
A1A:260.02	200	200	300
A1A:260.04	400	400	500
A1A:260.06	600	600	700
A1A:260.08	800	800	900
A1A:260.10	1000	1000	1100
A1A:260.12	1200	1200	1300
A1A:260.14	1400	1400	1500
A1A:260.16	1600	1600	1700

This datasheet applies to:

**Metric thread: A1A:260.XX,
A1B:260.XX**

**Inch thread: A2A:260.XX,
A2B:260.XX**

MAXIMUM ALLOWABLE RATINGS

PARAMETER	VALUE	UNITS	NOTES
T_J Junction Temperature	-40 to 180	$^{\circ}\text{C}$	-
T_{stg} Storage Temperature	-40 to 180	$^{\circ}\text{C}$	-
$I_{F(AV)}$ Max. Av. current @ Max. T_C	260	A	180° half sine wave
	125	$^{\circ}\text{C}$	
$I_{F(RMS)}$ Nom. RMS current	530	A	-
I_{FSM} Max. Peak non-rep. surge current	5046	A	50 Hz half cycle sine wave Initial $T_J = 180^{\circ}\text{C}$, rated V_{RRM} applied after surge.
	5500		60 Hz half cycle sine wave
	6000		50 Hz half cycle sine wave Initial $T_J = 180^{\circ}\text{C}$, no voltage applied after surge.
	6540		60 Hz half cycle sine wave
I^2t Max. I^2t capability	116	kJ^2s	$t = 10\text{ms}$ Initial $T_J = 180^{\circ}\text{C}$, rated V_{RRM} applied after surge.
	126		$t = 8.3\text{ ms}$
	163		$t = 10\text{ms}$ Initial $T_J = 180^{\circ}\text{C}$, no voltage applied after surge.
	178		$t = 8.3\text{ ms}$
$I^2t^{1/2}$ Max. $I^2t^{1/2}$ capability	1350	$\text{kJ}^2\text{s}^{1/2}$	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	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 $T_J = 25^{\circ}\text{C}$, sinusoidal wave, $I_{peak} = 440\text{A}$.
$V_{F(TO)}$ Threshold voltage	---	---	0.82	V	$T_J = 180^{\circ}\text{C}$, Av. Power = $V_{F(TO)} * I_{F(AV)} + r_F * [I_{F(RMS)}]^2$, sine.
r_{F1} Forward slope resistance	---	---	0.45	m	Use low values for $I_{FM} < I_{F(AV)}$
I_{RM} Peak reverse current	---	10	15.00	mA	$T_J = 180^{\circ}\text{C}$. Max. Rated V_{RRM}
R_{thJC} Thermal resistance, junction-to-case	---	---	0.20	$^{\circ}\text{C/W}$	DC operation
	---	---	0.20	$^{\circ}\text{C/W}$	180° sine wave
	---	---	0.24	$^{\circ}\text{C/W}$	120° rectangular wave
R_{thCS} Thermal resistance, case-to-sink	---	---	0.03	$^{\circ}\text{C/W}$	Mtg. Surface smooth, flat and greased. Single side.
wt Weight	---	250(8.75)	---	g(oz.)	---
Case Style	DO-205AB (DO-9)			JEDEC	---

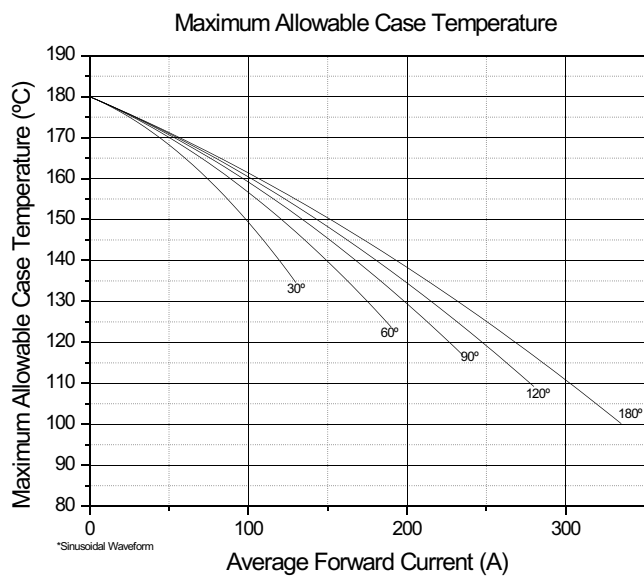


Fig. 1 - Current Ratings Characteristics

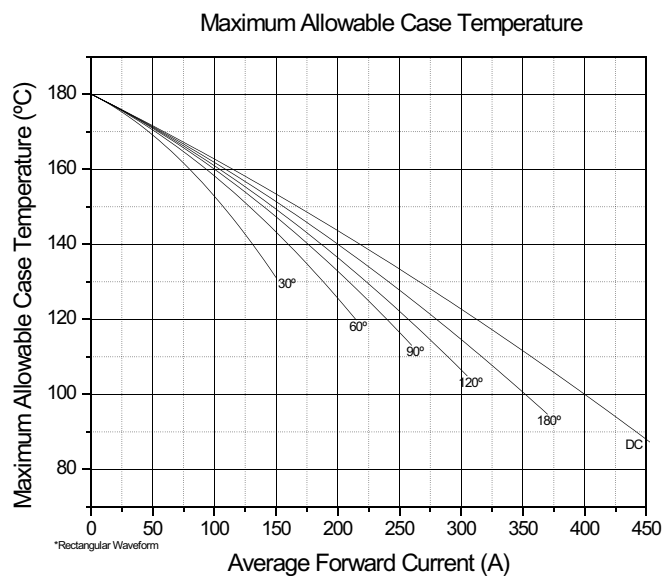


Fig. 2 - Current Ratings Characteristics



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Maximum Average Forward Power Loss

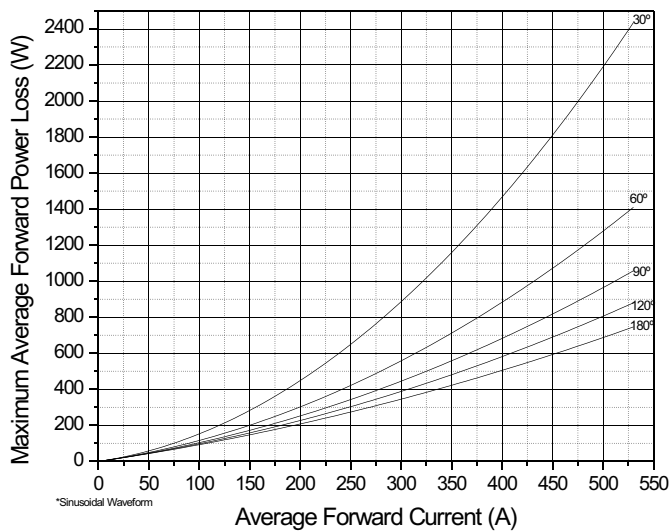


Fig. 3 - Forward Power Loss Characteristics

Maximum Average Forward Power Loss

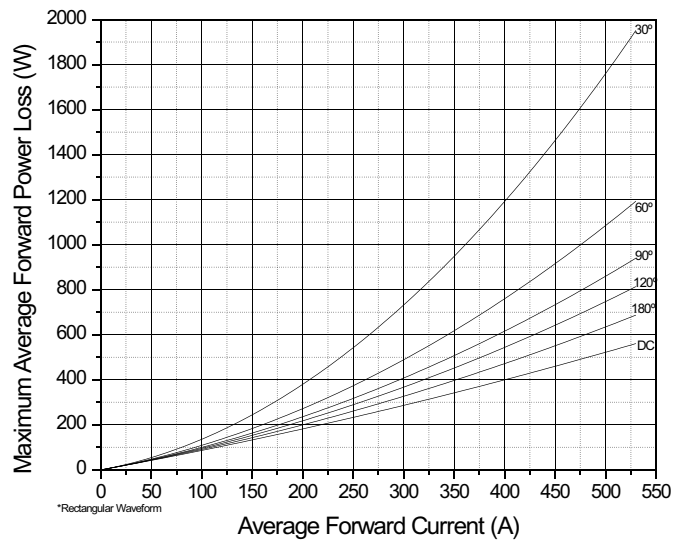


Fig. 4 - Forward Power Loss Characteristics

Forward Voltage Drop

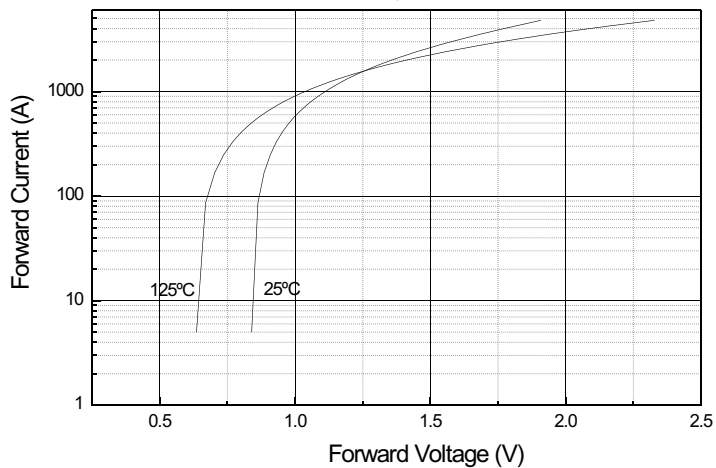


Fig. 5 - Forward Voltage Drop Characteristics

Transient Thermal Impedance vs. Time

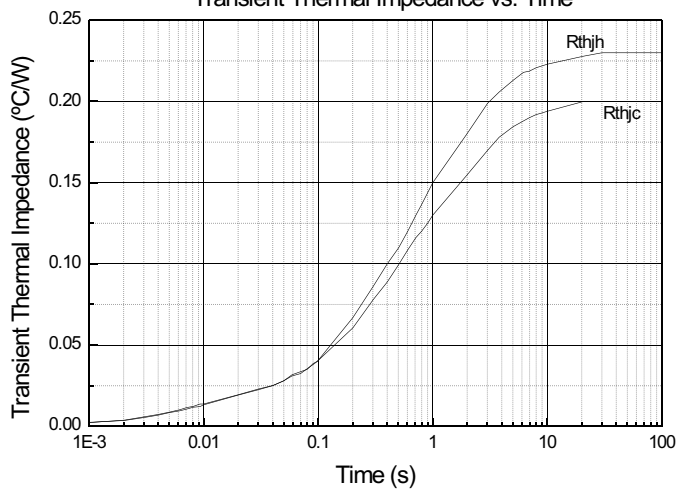


Fig. 6 - Transient Thermal Impedance Characteristics



AEGIS
SEMICONDUCTORES LTDA.

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DO-205AB (DO-9)

