CURRENT 25~35 Ampere
VOLTAGE RANG 50 to 1600 Volts

26MB160A THRU 36MB160A

FEATURES

This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902

- Universal, 3 way terminals: push-on, wrap around or solder
- High thermal conductivity package, electrically insulated case
- Center hole fixing
- Excellent power/volume ratio
- Nickel plated terminals solderable using lead (Pb)-free solder; solder alloy Sn/Ag/Cu (SAC305); solder temperature 260 to 275 °C
- RoHS compliant
- Designed and qualified for industrial and consumer level

RoHS COMPLIANT

D-34

DESCRIPTION

A range of extremely compact, encapsulated single phase bridge rectifiers offering efficient and reliable operation. They are intended for use in general purpose and instrumentation applications.

PRODUCT SUMMARY	
I_O	25 A/35 A

MAJOR RATINGS AND CHARACTERISTICS

SYMBOL	CHARACTERISTICS	26MB-A	36MB-A	UNITS
I_O		25	35	A
	T_C	70	55	°C
I_{FSM}	50 Hz	400	475	A
	60 Hz	420	500	
I^2t	50 Hz	790	1130	A^2s
	60 Hz	725	1030	
V_{RRM}	Range	1400 to 1600	1400 to 1600	V
T_J		- 55 to 150	- 55 to 150	°C

ELECTRICAL SPECIFICATIONS

VOLTAGE RATINGS

TYPE NUMBER	VOLTAGE CODE	V_{RRM}, MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE V	V_{RSM}, MAXIMUM NON-REPETITIVE PEAK REVERSE VOLTAGE V	I_{RRM} MAXIMUM AT T_J MAXIMUM mA
26MB..A 36MB..A	140	1400	1500	2
	160	1600	1700	

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FORWARD CONDUCTION							
PARAMETER	**SYMBOL**	**TEST CONDITIONS**			**26MB-A**	**36MB-A**	**UNITS**
Maximum DC output current at case temperature	I_O	Resistive or inductive load			25	35	A
		Capacitive load			20	28	A
					65	60	°C
Maximum peak, one cycle non-repetitive forward current	I_{FSM}	t = 10 ms	No voltage reapplied	Initial T_J = T_J maximum	400	475	A
		t = 8.3 ms			420	500	
		t = 10 ms	100 % V_{RRM} reapplied		335	400	
		t = 8.3 ms			350	420	
Maximum I^2t for fusing	I^2t	t = 10 ms	No voltage reapplied		790	1130	A^2s
		t = 8.3 ms			725	1030	
		t = 10 ms	100 % V_{RRM} reapplied		560	800	
		t = 8.3 ms			512	730	
Maximum $I^2\sqrt{t}$ for fusing	$I^2\sqrt{t}$	I^2t for time $t_x = I^2\sqrt{t} \times \sqrt{t_x}$; $0.1 \le t_x \le 10$ ms, V_{RRM} = 0 V			5.6	11.3	$kA^2\sqrt{s}$
Low level of threshold voltage	$V_{F(TO)1}$	(16.7 % x π x $I_{F(AV)}$ < I < π x $I_{F(AV)}$), T_J maximum			0.70	0.74	V
High level of threshold voltage	$V_{F(TO)2}$	(I > π x $I_{F(AV)}$), T_J maximum			0.75	0.79	V
Low level forward slope resistance	r_{t1}	(16.7 % x π x $I_{F(AV)}$ < I < π x $I_{F(AV)}$), T_J maximum			7.0	5.5	mΩ
High level forward slope resistance	r_{t2}	(I > π x $I_{F(AV)}$), T_J maximum			6.4	5.2	mΩ
Maximum forward voltage drop	V_{FM}	T_J = 25 °C, I_{FM} = 40 Apk (26MB)		t_p = 400 µs	1.25	1.3	V
		T_J = 25 °C, I_{FM} = 55 Apk (36MB)					
Maximum DC reverse current per diode	I_{RRM}	T_J = 25 °C, at V_{RRM}			10	10	µA
RMS isolation voltage base plate	V_{ISOL}	f = 50 Hz, t = 1 s			2700	2700	V

THERMAL AND MECHANICAL SPECIFICATIONS					
PARAMETER	**SYMBOL**	**TEST CONDITIONS**	**26MB-A**	**36MB-A**	**UNITS**
Junction and storage temperature range	T_J, T_{Stg}		- 55 to 150		°C
Maximum thermal resistance, junction to case per bridge	R_{thJC}		1.7	1.35	K/W
Maximum thermal resistance, case to heatsink	R_{thCS}	Mounting surface, smooth, flat and greased	0.2		K/W
Mounting torque ± 10 %		Bridge to heatsink	2.0		Nm
Approximate weight			20		g

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Rating and Characteristic Curves (TA = 25°C Unless otherwise noted)

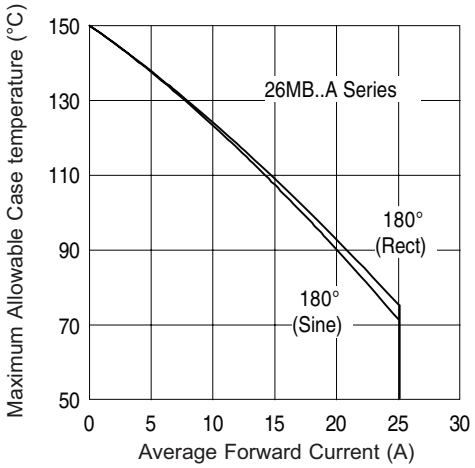

Fig. 1 - Current Ratings Characteristics

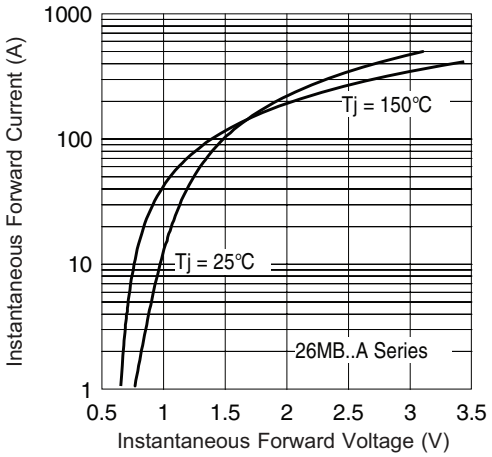

Fig. 2 - Forward Voltage Drop Characteristics

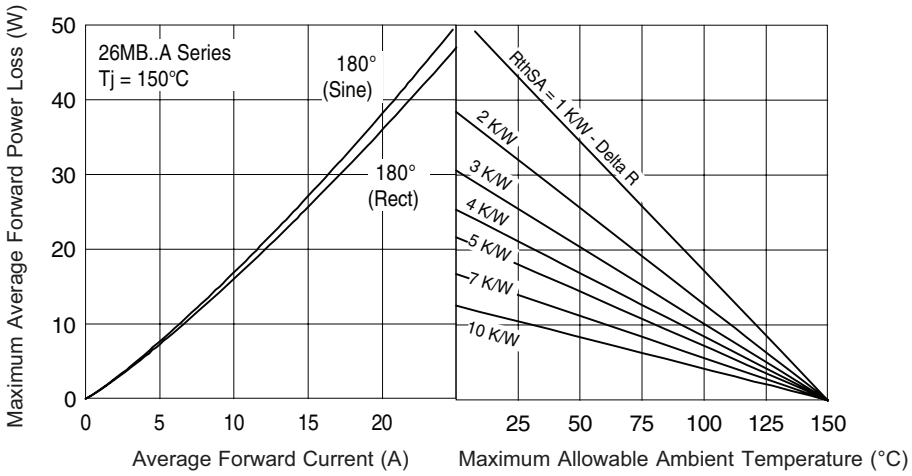

Fig. 3 - Total Power Loss Characteristics

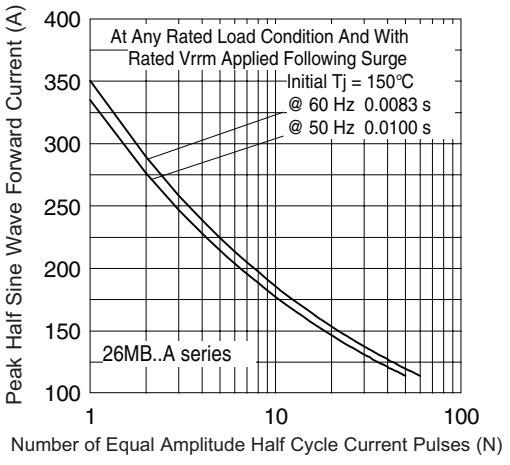

Fig. 4 - Maximum Non-Repetitive Surge Current

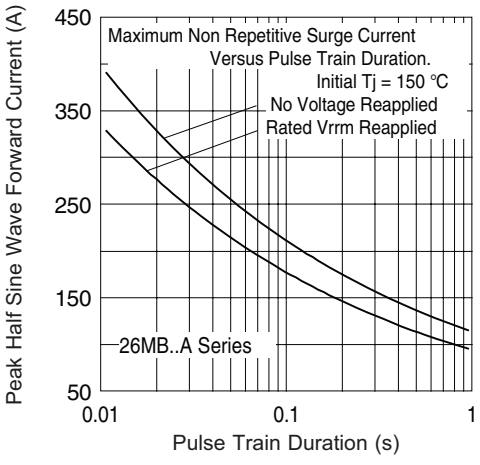

Fig. 5 - Maximum Non-Repetitive Surge Current

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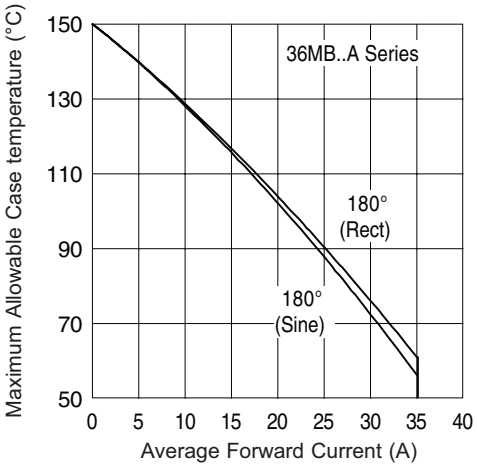

Fig. 6 - Current Ratings Characteristics

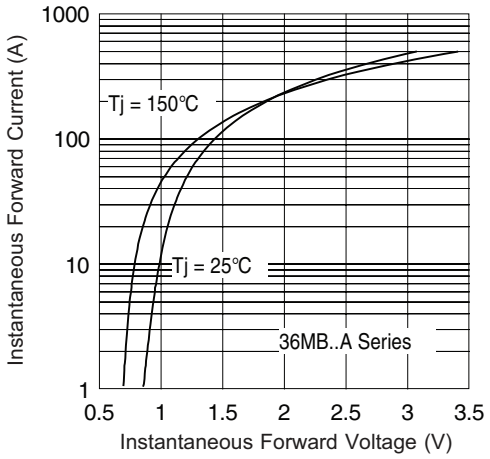

Fig. 7 - Forward Voltage Drop Characteristics

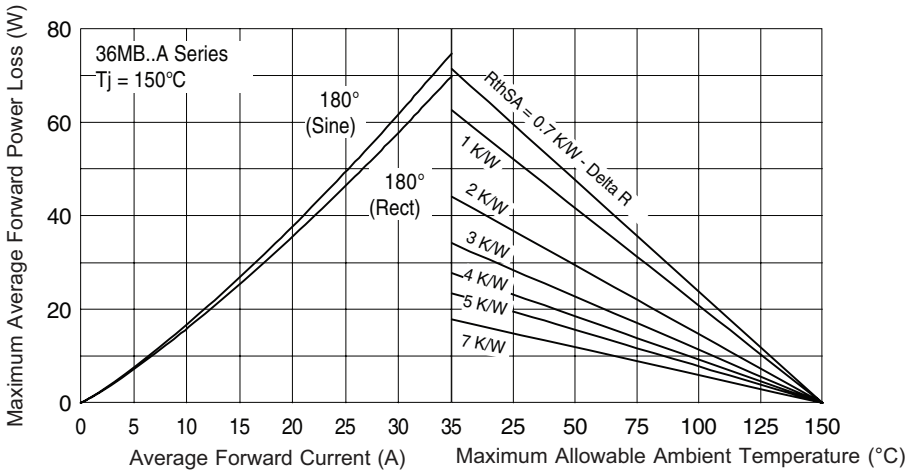

Fig. 8 - Total Power Loss Characteristics

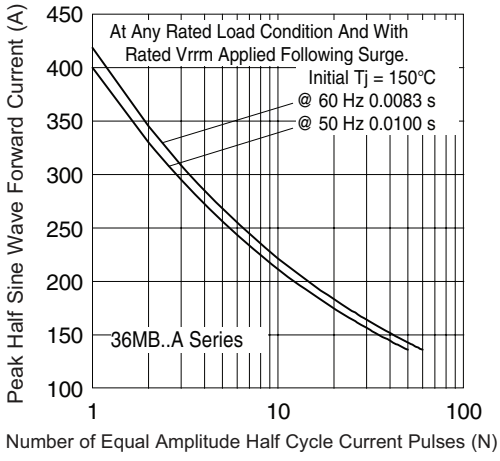

Fig. 9 - Maximum Non-Repetitive Surge Current

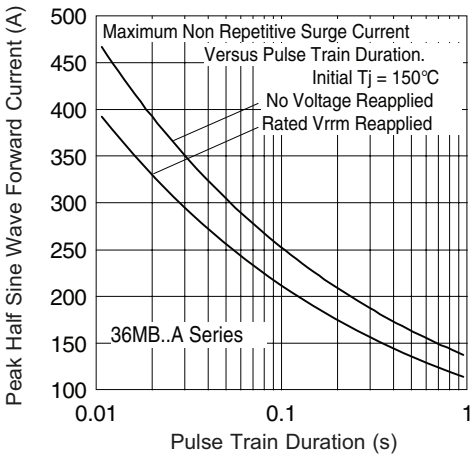

Fig. 10 - Maximum Non-Repetitive Surge Current

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ORDERING INFORMATION TABLE

Device code

36	MB	160	A
①	②	③	④

1 - Current rating code — 26 = 25 A (average), 36 = 35 A (average)

2 - Circuit configuration:

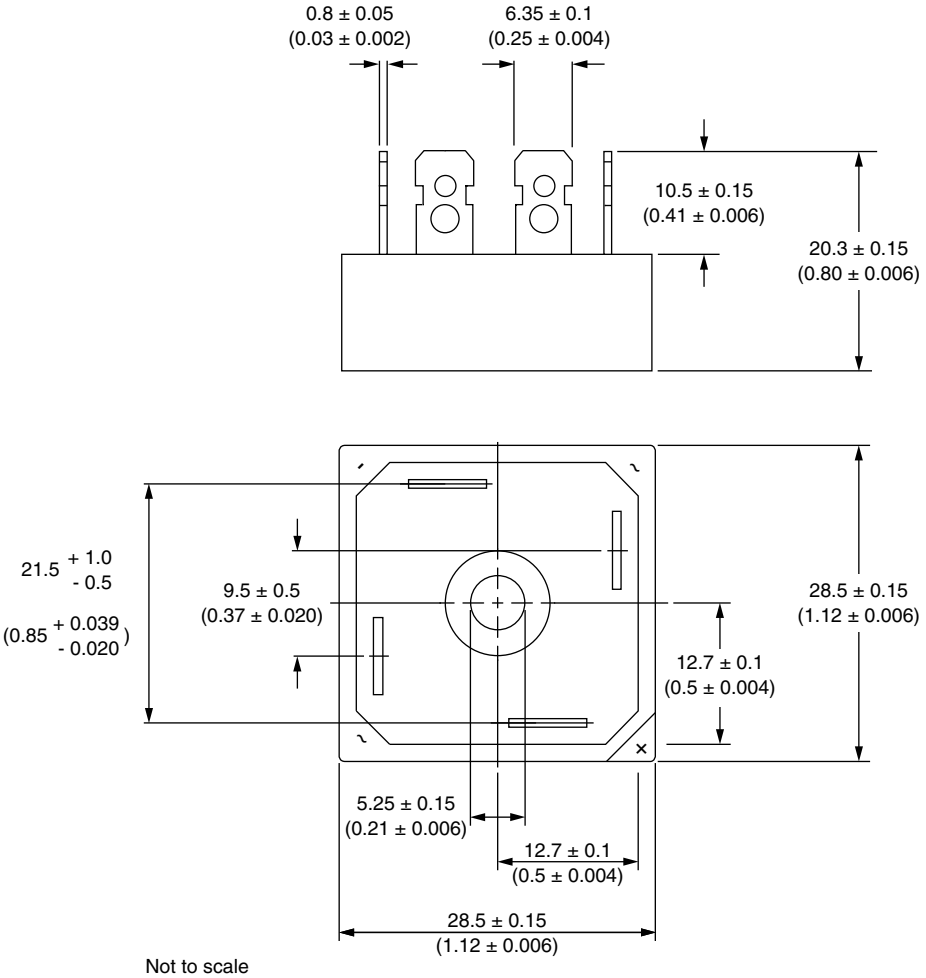
MB = Single phase european coding

3 - Voltage code x 10 = V_{RRM}

4 - Diode bridge rectifier:

A = 26 MB, 36MB series

DIMENSIONS in millimeters (inches)



Not to scale

Suggested plugging force:
200 N max; axially applied to fast-on terminals