2.0 Amp. Surface Mount Glass Passivated Ultrafast Recovery Rectifier

DO-214AA (SMB)

Voltage 200 V

Current 2.0 A

HYPERECTIFIER®

FEATURES

- Low profile package
- Ideal for automated placement
- Ultrafast recovery time for high efficiency
- Low power losses
- Low forward voltage drop
- High forward surge current capability
- Solder dip 260°C, 10s
- AEC-Q101 qualified
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

AUTOMOTIVE GRADE Available

Pb

e3

RoHS COMPLIANT

MECHANICAL DATA

- **Case:** DO-214AA (SMB). Epoxy meets UL 94V-0 flammability rating.
- **Polarity:** Color band denotes cathode end.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.
- **HE3 suffix** for high reliability grade, meets JESD 201 class 2 whisker test.

TYPICAL APPLICATIONS

Used in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, automotive and telecommunication.

Maximun Ratings and Electrical Characteristics at 25°C

		FES2DB
Marking Code		VA
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200
V_{RMS}	Maximum RMS Voltage (V)	140
V_{DC}	Maximum DC Blocking Voltage (V)	200
$I_{F(AV)}$	Forward current at T_L = 110 °C	2.0 A
I_{FSM}	8.3 ms. peak forward surge current (Jedec Method)	50 A
V_F	Maximum Instantaneous Forward Voltage at 2.0A at 0.7A	0.90 V 0.80 V
I_R	Maximum DC Reverse Current Tj = 25 °C at Rated DC Blocking Voltage Tj = 100 °C	5 µA 350 µA
T_{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	25 ns
C_j	Typical Junction Capacitance (1MHz; -4V)	55 pF
$R_{th\ (j-c)}$ $R_{th\ (j-a)}$	Maximum Thermal Resistance (5x5 mm^2 x 130 µm Copper Area)	20 °C/W 60 °C/W
T_j - T_{stg}	Operating Junction and Storage Temperature Range	-65 to + 150 °C

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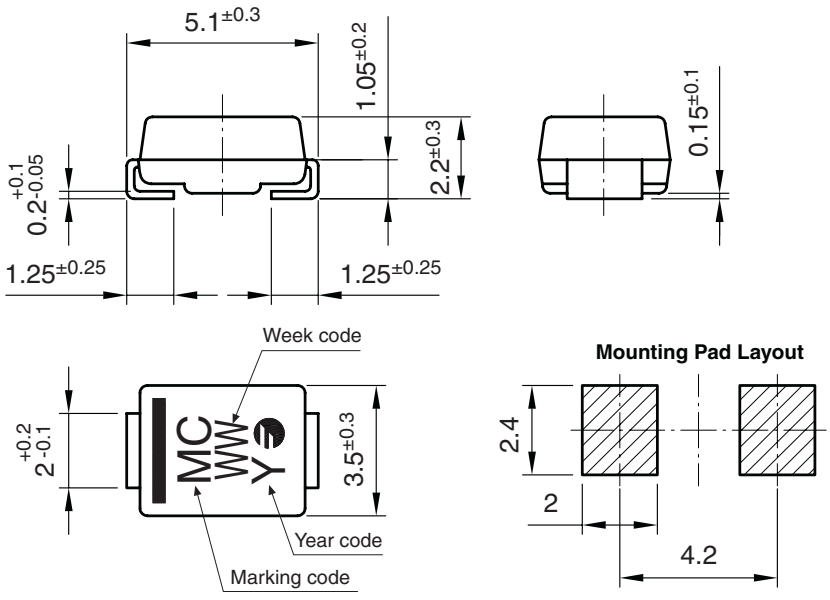
Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FES2DB TRTB	TRTB	13" diameter tape and reel	3,200	0.082
FES2DB HE3 TRTB	TRTB	13" diameter tape and reel	3,200	0.082

Package Outline Dimensions: (mm) DO-214AA (SMB)



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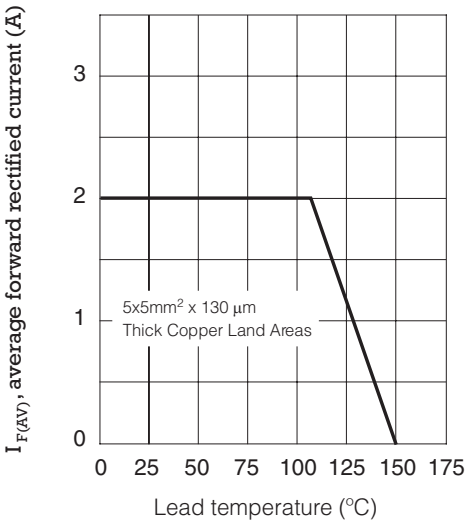
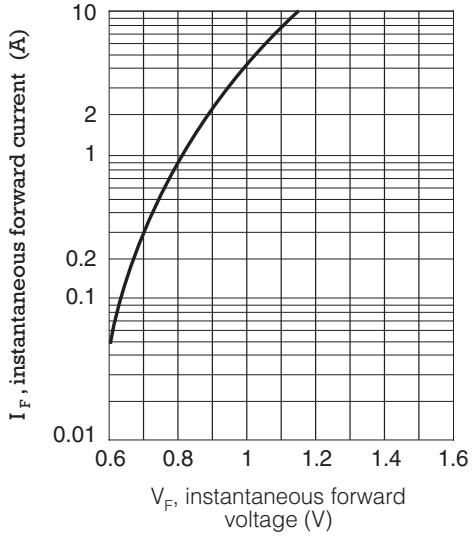
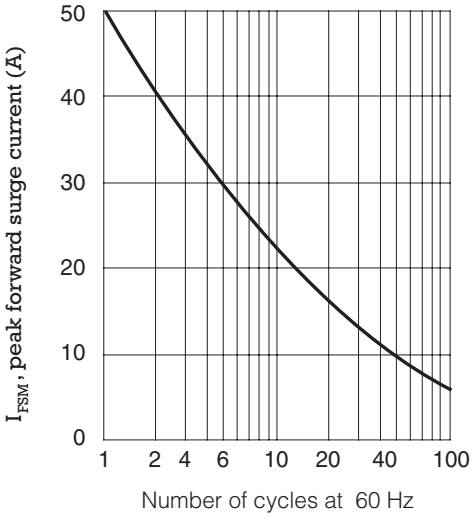
FORWARD CURRENT DERATING CURVE



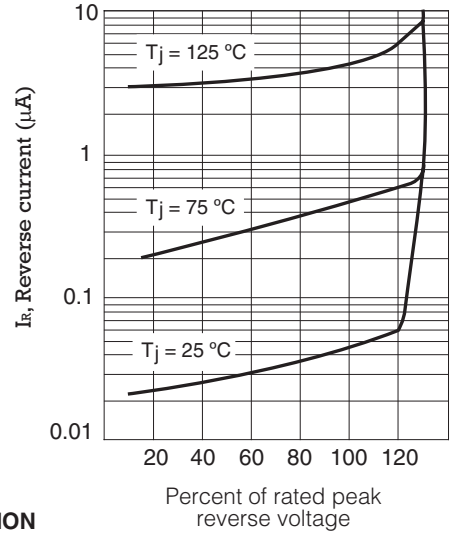
TYPICAL FORWARD CHARACTERISTIC



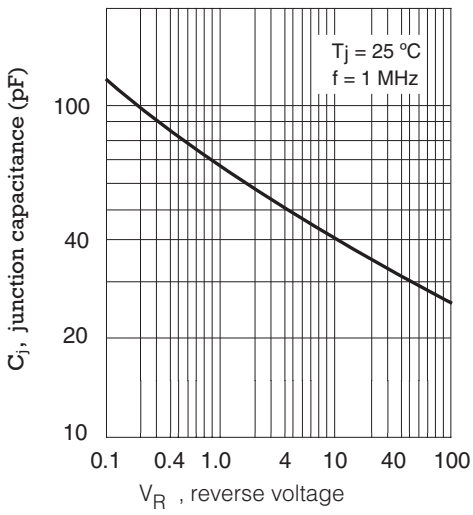
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE



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