

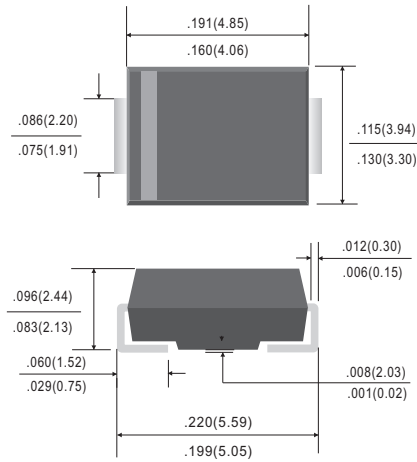


### 2.0 AMP SUPER FAST RECTIFIER

### DO-214AA/SMB PACKAGE

#### FEATURES

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"



#### MECHANICAL DATA

- \* Case: DO-214AA/SMB Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.093 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half wave, 60Hz, resistive of inductive load.  
 For capacitive load, derate current by 20%

RATINGS	SYMBOL	EFM201	EFM202	EFM203	EFM204	EFM205	EFM206	EFM208	UNIT
Marking Code		2E1	2E2	2E3	2E4	2E5	2E6	2E8	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	Volts
Maximum Average Forward Current at T <sub>A</sub> = 55°C	I <sub>O</sub>	2.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	50							Amps
Typical Thermal Resistance	R <sub>θJA</sub>	85							°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	30				20			pF
Operating Temperature Range	T <sub>J</sub>	-55 to +175							°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175							°C

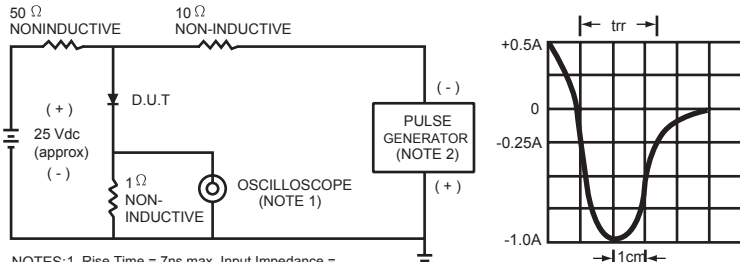
CHARACTERISTICS	SYMBOL	EFM201	EFM202	EFM203	EFM204	EFM205	EFM206	EFM208	UNIT
Maximum Forward Voltage at 2.0A DC (Note 3)	V <sub>F</sub>	0.95			1.25		1.75		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> =25°C			5.0				μAmps
		@T <sub>A</sub> =100°C			150				
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	35							nS

NOTES :1. Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = -1.0A, I<sub>RR</sub> = -0.25A  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

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FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm. 22 pF.  
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

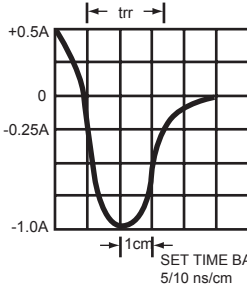


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

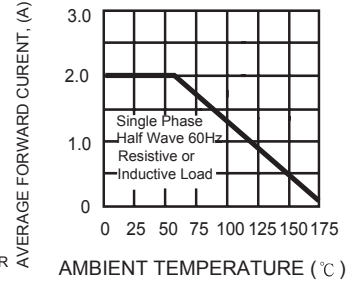


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

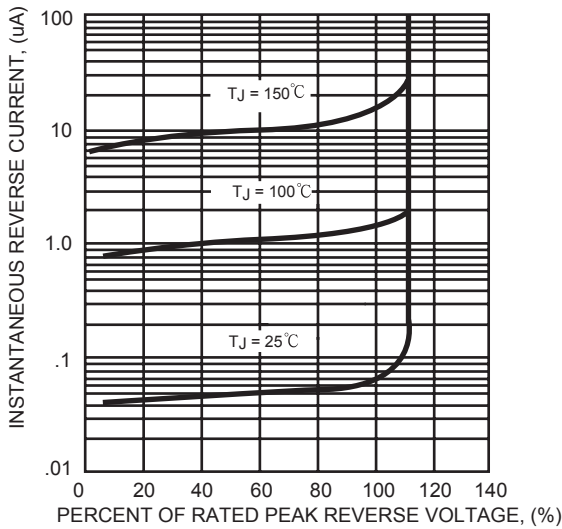


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

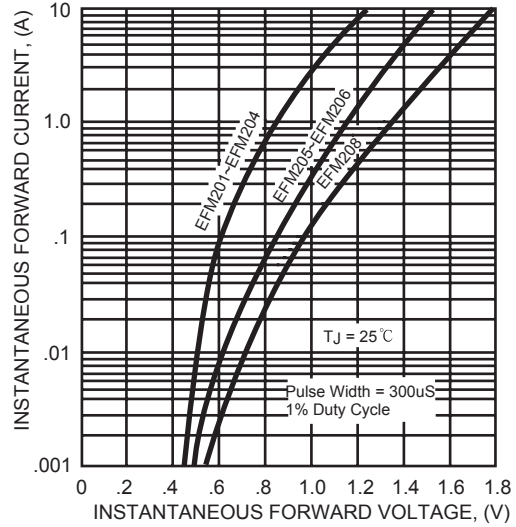


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

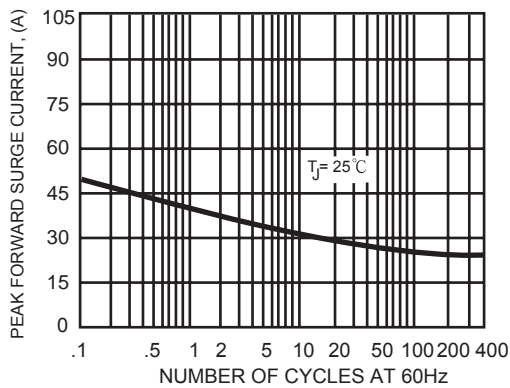


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

