SEMICONDUCTOR

EM2DB

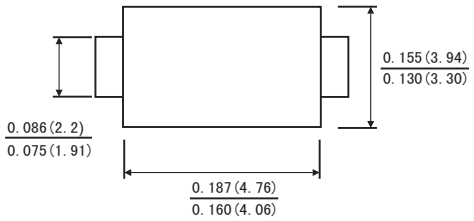
SURFACE MOUNT GLASS PASSIVATED JUNCTION SUPER FAST RECOVERY RECTIFIER

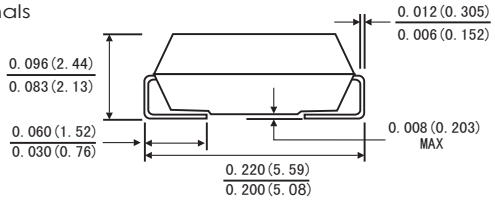
Reverse Voltage: 200 Volts
Forward Current:2.0Ampere

FEATURES

- Glass passivated cavity-free junction
- Ideal for surface mount automotive applications
- Ultrafast recovery time for high efficiency
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Lead (Pb)-free component
- Component in accordance to RoHS 2011/65/EU
- High temperature soldering guaranteed:260°C/10 seconds at terminals

SMB(DO-214AA)





Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,60HZ,resistive or inductive load.
For capacitive load,derate current by 20%.)

		Symbols	EM2DB	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	200	Volts
Maximum RMS Voltage		V_{RMS}	140	Volts
Maximum DC Blocking Voltage		V_{DC}	200	Volts
Maximum Average Forward Rectified Current at Ta=50°C		$I_{(AV)}$	2.0	Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	50	Amps
Maximum Instantaneous Forward Voltage at 2.0 A		V_F	0.875	Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage	T_A=25°C	I_R	5	μA
	T_A=125°C		150	
Maximum Reverse Recovery Time(Note1)		trr	20	ns
Typical Junction Capacitance(Note2)		C_J	15	pF
Typical Thermal Resistance (Note3)		$R_{\theta JA}$ $R_{\theta JL}$	75 20	°C/W
Operating Junction and Storage Temperature		T_J, T_{STG}	-55 to+150	°C

Note: 1.Test conditions: IF=0.5A,IR=1.0A,IRR=0.25A.

2.Measured at 1MHZ and applied reverse voltage of 4.0 Volts.

3. Thermal resistance from junction to ambient P. C. B. mounted on 0.27x0.27″(7.0x7.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES EM2DB

FIG.1- FORWARD CURRENT DERATING CURVE

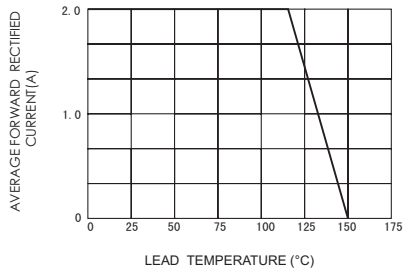


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

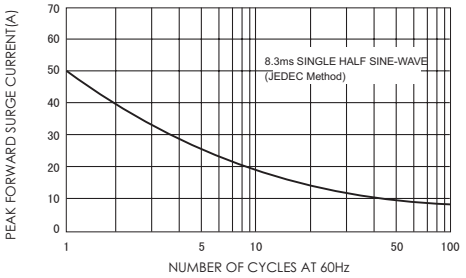


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

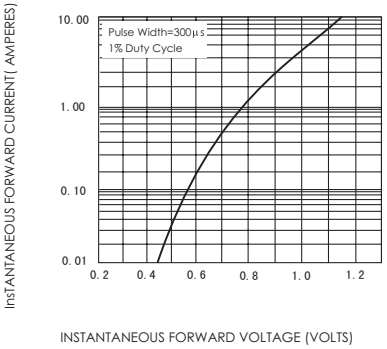


FIG.4-TYPICAL REVERSE CHARACTERISTICS