Technical Data *Green Products*
Data Sheet N1648, Rev. -

ER2M ULTRAFAST PLASTIC RECTIFIER

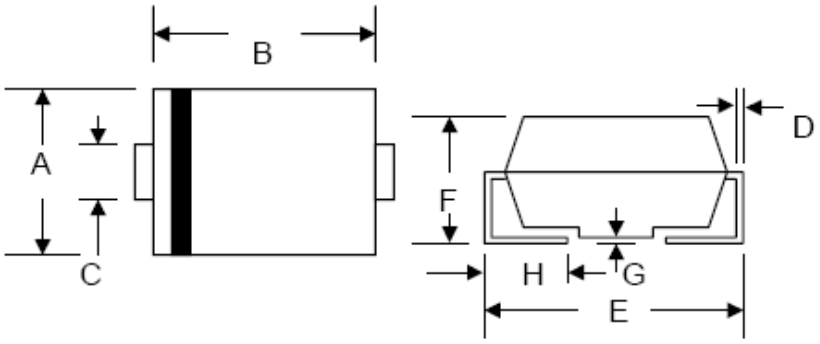
Features:

- **Super fast switching for high efficiency**
- **Low leakage current**
- **High forward surge capability**
- **Solder dip 260 °C, 40 s**
- **Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Data:

- **Case: Low Profile Molded Plastic**
- **Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026**
- **Polarity: Cathode Band or Cathode Notch**
- **Weight: 0.68 grams(approx)**

Mechanical Dimensions: In mm / Inches

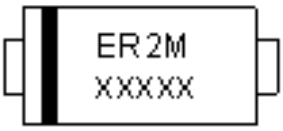


	SMB/DO-214AA			
Dim.	Min.	Max.	Min.	Max.
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.80	2.20	0.071	0.087
D	0.152	0.305	0.006	0.012
E	4.80	5.59	0.189	0.220
F	2.10	2.60	0.083	0.102
G	0.051	0.203	0.002	0.008
H	0.76	1.52	0.030	0.060
	In mm		In inch	

SMB

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Marking Diagram:



Where XXXXX is YYWWL

ER = Device Type
2 = Forward Current (2A)
M = Reverse Voltage (1000V)
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
ER2M	SMB (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	ER2M	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	VOLTS
Maximum RMS voltage	V_{RMS}	700	VOLTS
Maximum DC blocking voltage	V_{DC}	1000	VOLTS
Maximum average forward rectified current at T**A**=75℃	$I_{(AV)}$	2.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0	Amps
Maximum instantaneous forward voltage at 2.0A	V_F	1.7	Volts
Maximum DC reverse current T**A**=25 ℃ at rated DC blocking voltage T**A**=100 ℃	I_R	5.0 50.0	μA
Maximum reverse recovery time (NOTE 1)	Trr	75	nS
Typical junction capacitance (NOTE 2)	C_J	60.0	pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	40.0	℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150	℃

Note: 1.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

FIG. 1- FORWARD CURRENT DERATING CURVE

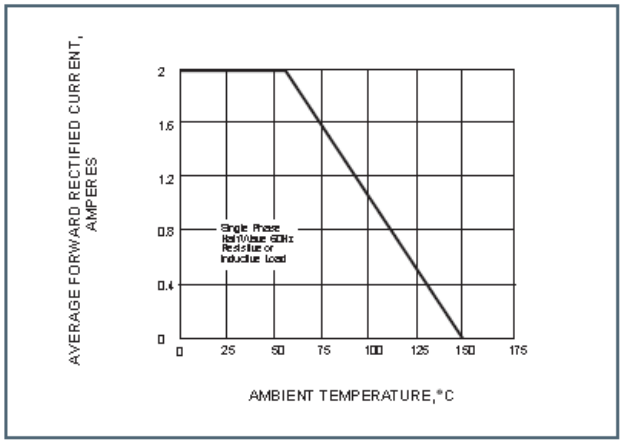


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

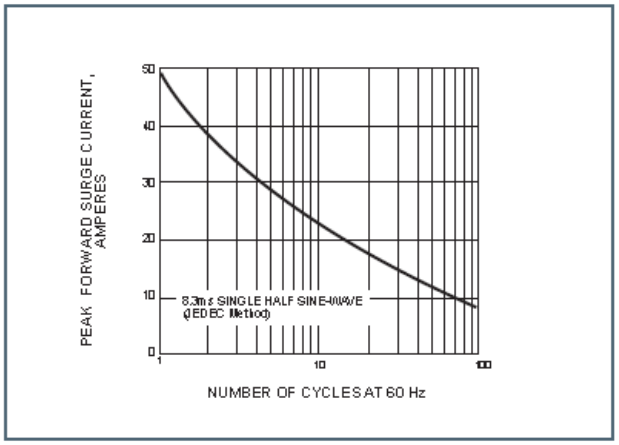


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

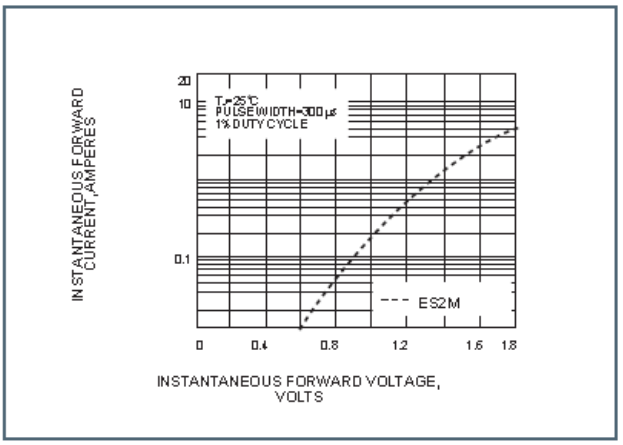
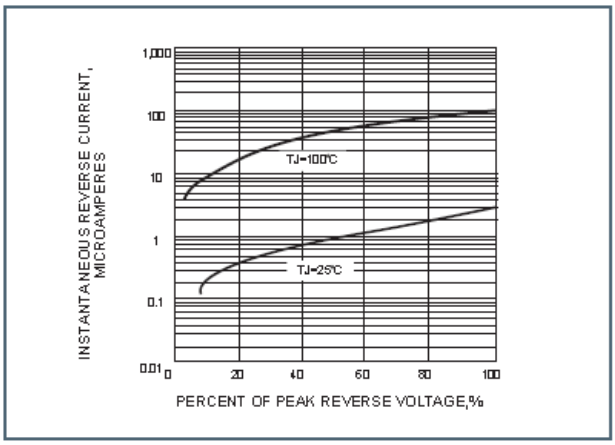


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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