

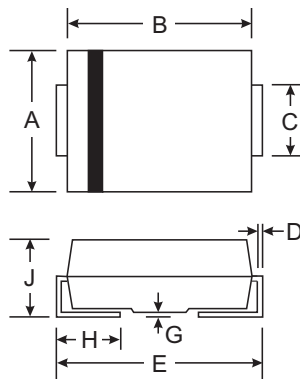
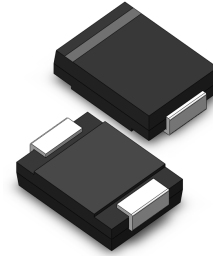
VOLTAGE RANGE: 100 - 200V
CURRENT: 3.0 A

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Super-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

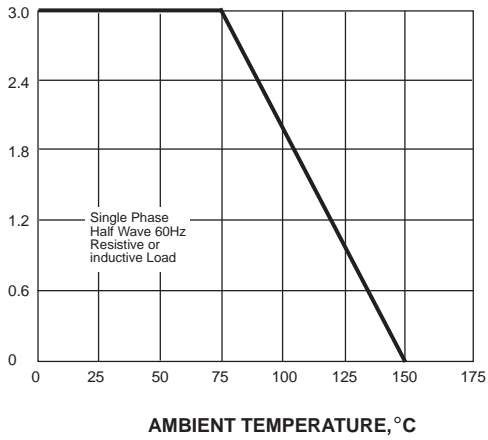
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	ESH3B	ESH3C	ESH3D	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	150	200	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	70	105	140	V
Average Rectified Output Current @ $T_L = 75^\circ\text{C}$	I_o	3.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100			A
Forward Voltage @ $I_F = 3.0\text{A}$	V_{FM}	0.95			V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 500			μA
Reverse Recovery Time (Note 1)	t_{rr}	35			nS
Typical Junction Capacitance (Note 2)	C_j	45			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	16			$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150			$^\circ\text{C}$

Note: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$. See figure 5.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on P.C. Board with 8.0mm² land area.

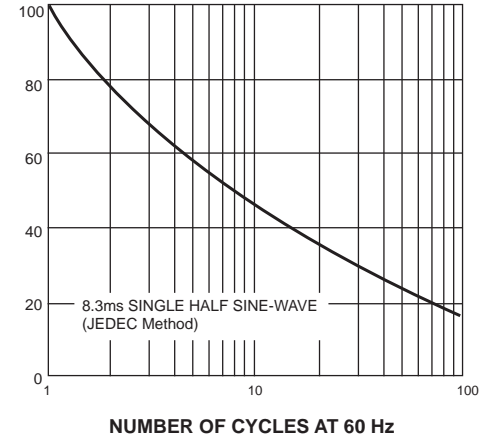
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



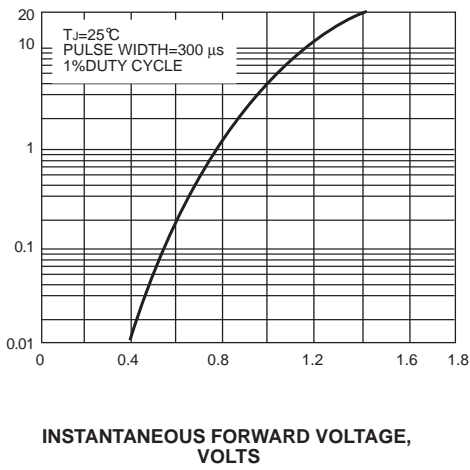
PEAK FORWARD SURGE CURRENT, AMPERES

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



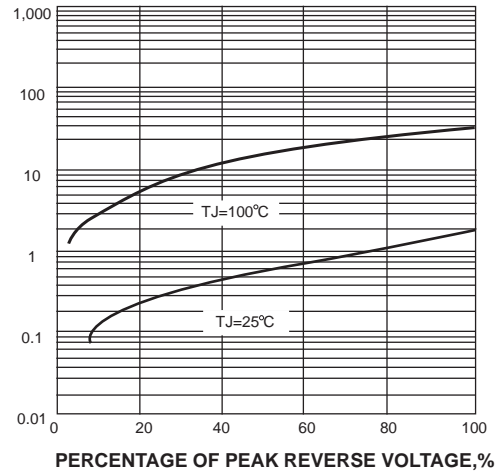
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



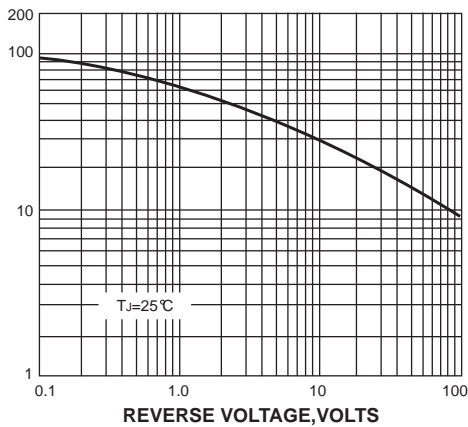
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

