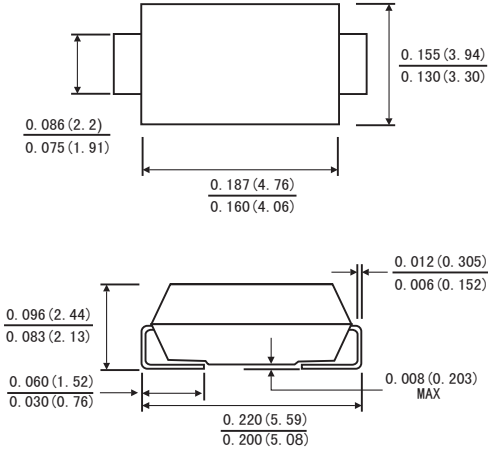


SURFACE MOUNT SUPER FAST RECTIFIER	Reverse Voltage: 50 to 600 Volts Forward Current: 3.0 Amperes
DO-214AA/SMB  Dimensions in inches and (millimeters)	Features • Glass passivated • Ideal for surface mount automotive applications • Ultrafast recovery time for high efficiency • Built-in strain relief • 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 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 • Mounting Position: Any • Weight: 0.003 ounce, 0.093 gram

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	ES3AB	ES3BB	ES3DB	ES3FB	ES3GB	ES3JB	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	300	400	600	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	210	280	420	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	300	400	600	Volts
Maximum Average Forward Rectified Current At $T_L=110^{\circ}\text{C}$		$I_{(AV)}$	3.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	100						Amps
Maximum Instantaneous Forward Voltage at 3.0 A		V_F	0.95			1.25		1.7	Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	I_R	10						μA
	$T_A=125^{\circ}\text{C}$		500						
Maximum Reverse Recovery Time(Note1)		T_{rr}	35						ns
Typical Junction Capacitance(Note2)		C_J	45						pF
Typical Thermal Resistance (NOTE3)		$R_{\theta JA}$	70						$^{\circ}\text{C/W}$
Operating Junction and Storage Temperature		T_J, T_{STG}	-55 to +150						$^{\circ}\text{C}$

Note: 1. Reverse Recovery Test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.

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

3. Thermal Resistance From Junction To Ambient P. C. B. Mounted On 0.2x0.2" (5.0x5.0mm) Copper Pad Areas.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

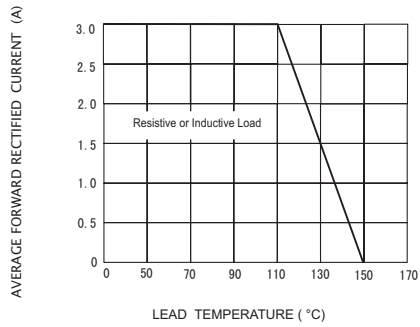


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

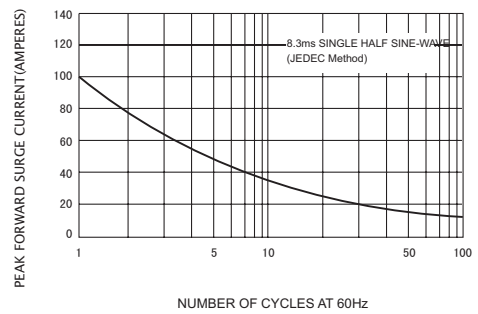


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

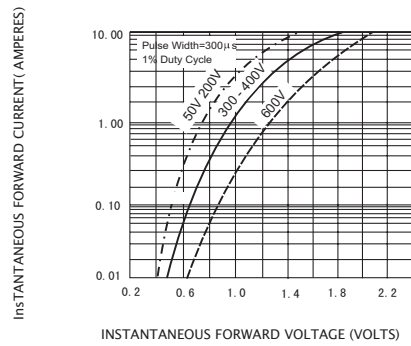


FIG.4-TYPICAL REVERSE CHARACTERISTICS

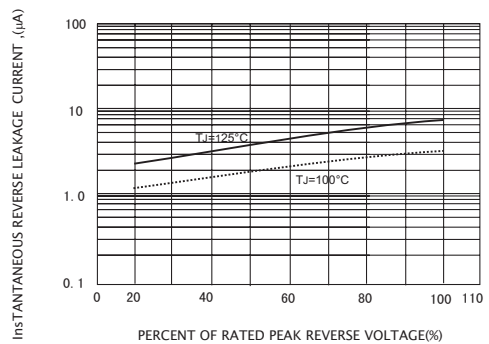


FIG.5-TYPICAL JUNCTION CAPACITANCE

