

ER5A~ER5J

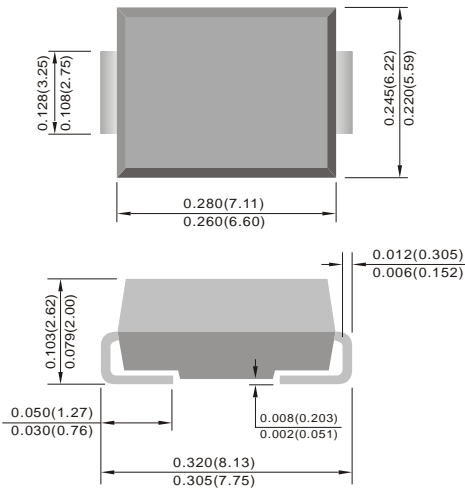
SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volts **CURRENT** 5.0 Amperes



SMC / DO-214AB

Unit : inch(mm)



FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Both normal and Pb free product are available :
 Normal : 80~95% Sn, 5~20% Pb
 Pb free: 98.5% Sn above

MECHANICAL DATA

Case: Molded plastic, DO-214AB
 Terminals: Axial leads, solderable to MIL-STD-202, Method 208
 Polarity: Color Band denotes cathode end
 Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PASAFMETES	SYMBOL	ER5A	ER5B	ER5C	ER5D	ER5E	ER5G	ER5J	UNITS	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V	
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V	
Maximum Average Forward Current at $T_L=75^\circ\text{C}$	$I_{F(AV)}$	5							A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	135							A	
Maximum Forward Voltage at 3A	V_F	0.95		1.30			1.7	V		
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	5				100				μA
Maximum Reverse Recovery Time (Notes 1)	t_{rr}	35				ns				
Typical Junction Capacitance (Notes 2)	C_J	45				pF				
Typical Thermal Resistance (Notes 3)	$R_{\theta JL}$	20				$^\circ\text{C} / \text{W}$				
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

NOTES: 1. Reverse Recovery Test Conditions: $I_F=-.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
 3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

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RATING AND CHARACTERISTIC CURVES

