

ER5A~ER5J

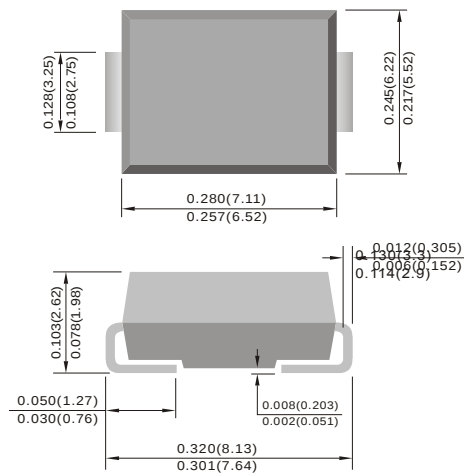
SUPERFAST RECOVERY RECTIFIERS

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.

PARAMETER	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 .375" (9.5mm) lead length at TA=55°C	I _{AV}	5.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150							A
Maximum Forward Voltage at 5.0A	V _F	0.95				1.25		1.70	V
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=125°C	I _R	5.0 300							uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	35							ns
Typical Junction capacitance (Note 2)	C _J	65							pF
Typical Junction Resistance (Note 3)	R _{θJA}	20							°C / W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 TO +150							°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

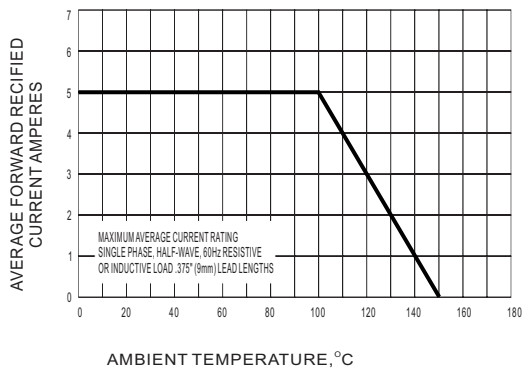


FIG.1 MAXIMUM AVERAGE FORWARD CURRENT RATING

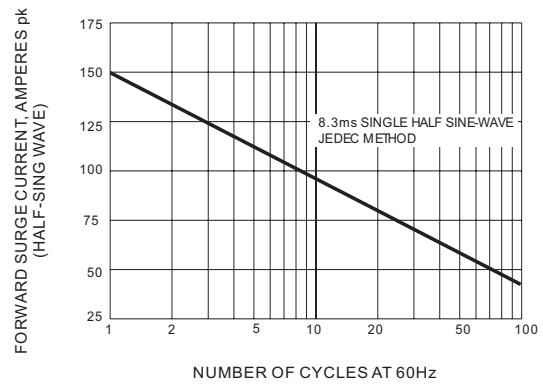


FIG.2 MAXIMUM NON-REPEITIVE SURGE CURRENT

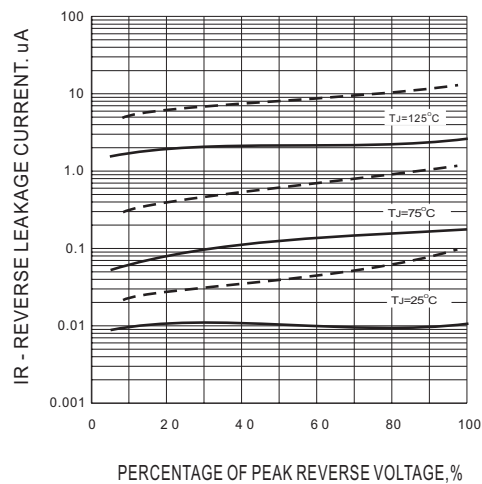


FIG.3 TYPICAL REVERSE CHARACTERISTICS

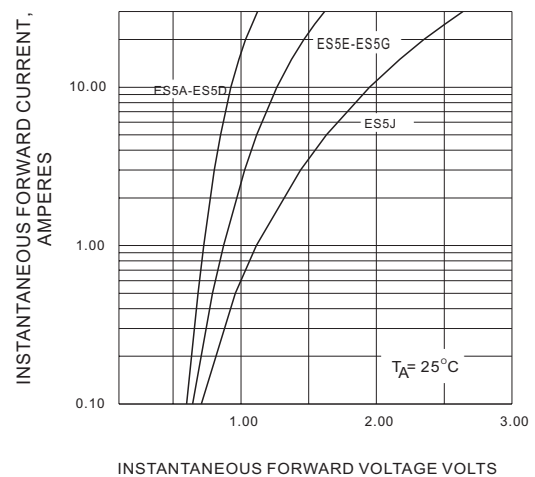


FIG.4 TYPICAL JUNCTION CAPACITANCE