

# MURC5J / MUR560M / MUR560S

## SUPERFAST RECOVERY RECTIFIERS

**Voltage**

**600 V**

**Current**

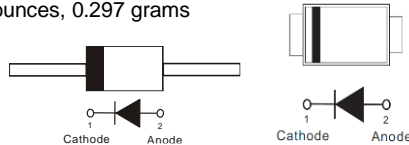
**5 A**

### Features

- Silicon epitaxial high-speed diodes
- Soft recovery characteristics
- Low forward voltage, high current capability
- Hermetically sealed.
- Low leakage
- High surge capacity
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: Molded plastic, SMC, DO-201AD, TO-252
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- SMC Approx. Weight: 0.0082 ounces, 0.2325 grams
- DO-201AD Approx. Weight: 0.04 ounces, 1.142 grams
- TO-252 Weight: 0.0104 ounces, 0.297 grams
- Marking: Part number



### Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600	V
Maximum rms voltage	V <sub>RMS</sub>	420	V
Maximum dc blocking voltage	V <sub>R</sub>	600	V
Maximum average forward current	I <sub>F(AV)</sub>	5	A
Peak forward surge current : 8.3ms single half sine- wave superimposed on rated load	SMC DO-201AD TO-252 I <sub>FSM</sub>	110 110 80	A
Maximum forward voltage at 5A	V <sub>F</sub>	1.3	V
Maximum dc reverse current at rated dc blocking voltage	I <sub>R</sub>	5	μA
Maximum reverse recovery time	(Note 5) T <sub>RR</sub>	50	ns
Typical thermal resistance	SMC(Note 3) R <sub>θJA</sub>	125	°C/W
	SMC(Note 1) R <sub>θJC</sub>	14	
	DO-201AD(Note 2) R <sub>θJL</sub>	24	
	TO-252(Note 4) R <sub>θJC</sub>	6.5	
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +175	°C

Note : 1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area

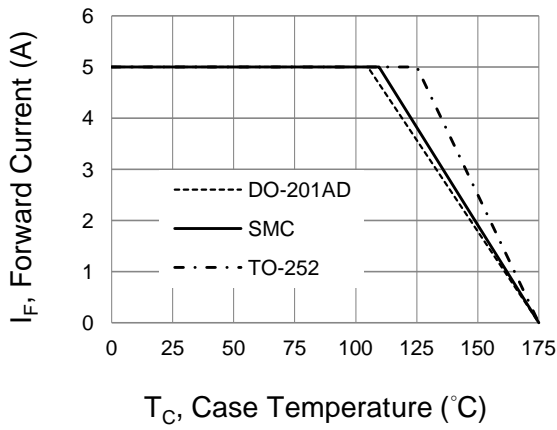
2. The testing condition of the thermal resistance (junction to lead) is based on 10 mm lead length between two 10cm x 10cm x 0.5mm copper pad

3. Mounted on a FR4 PCB, single-sided copper, mini pad

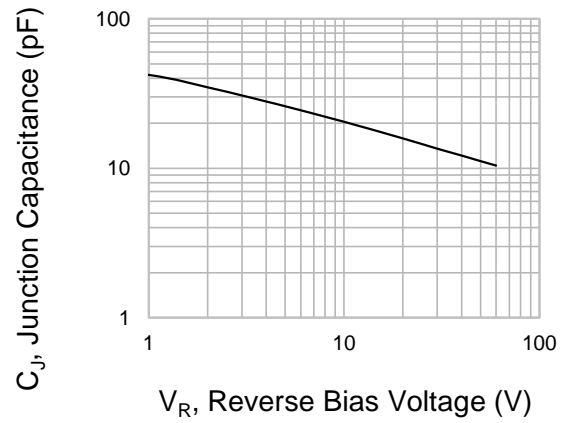
4. Mounted on 10cm x 10cm x 1mm copper pad area

5. Reverse Recovery Test Conditions : I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, Recover to 0.25A

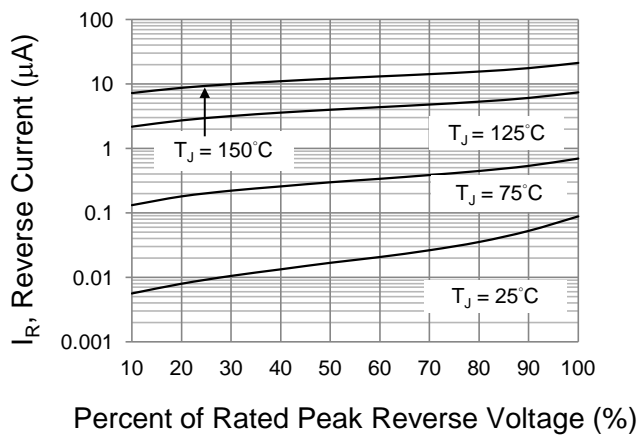
# MURC5J / MUR560M / MUR560S



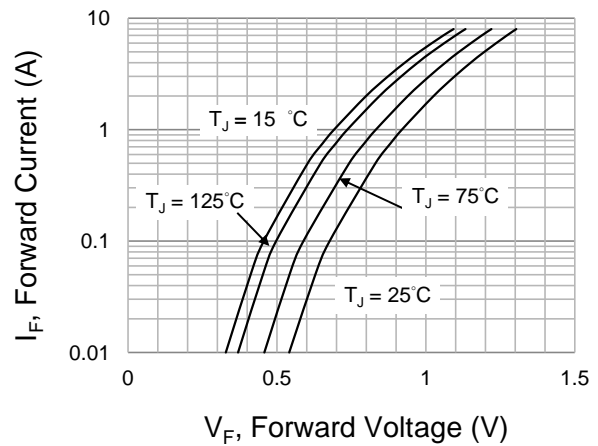
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

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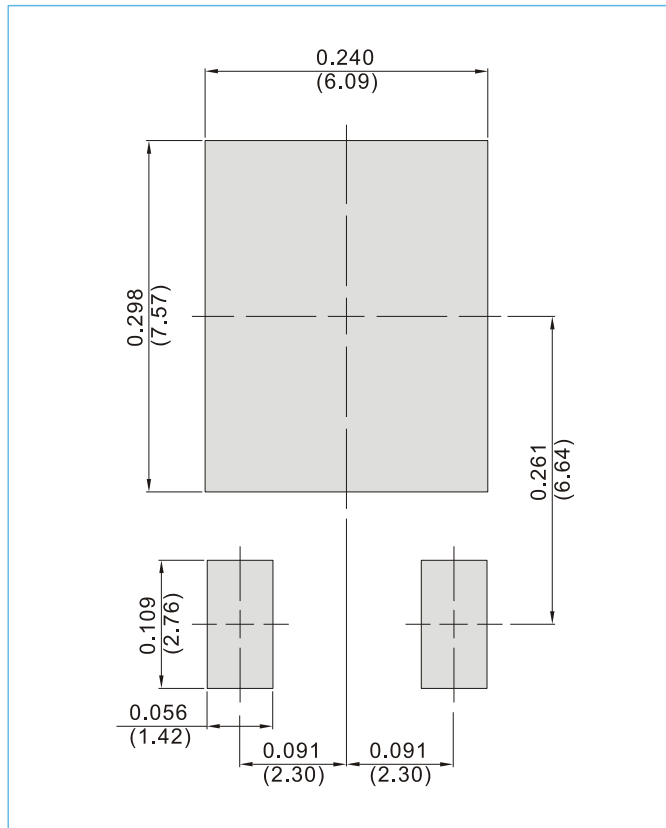
## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MUR560M	DO-201AD	1.25K pcs / TB 52mm	MUR560M
MUR560S	TO-252	3K pcs / 13" reel	MUR560S
MURC5J	SMC	0.8K pcs / 7" reel	MURC5J

## Packaging Information & Mounting Pad Layout

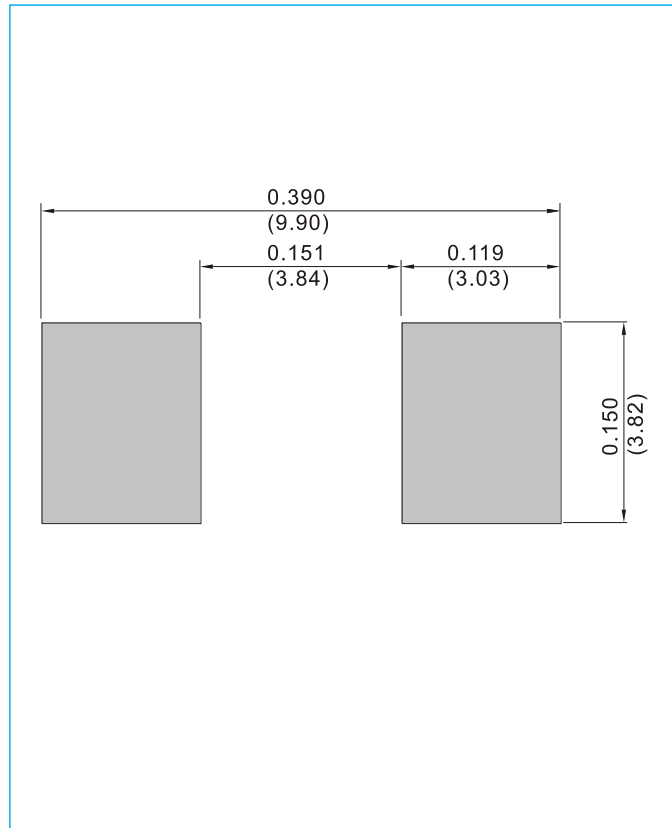
### TO-252

Unit : inch(mm)



### SMC / DO-214AB

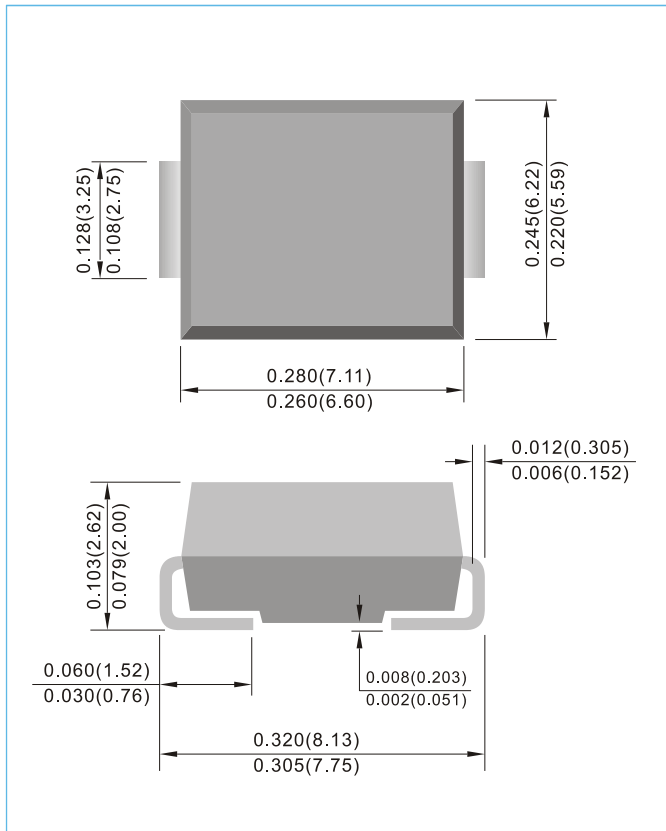
Unit : inch(mm)



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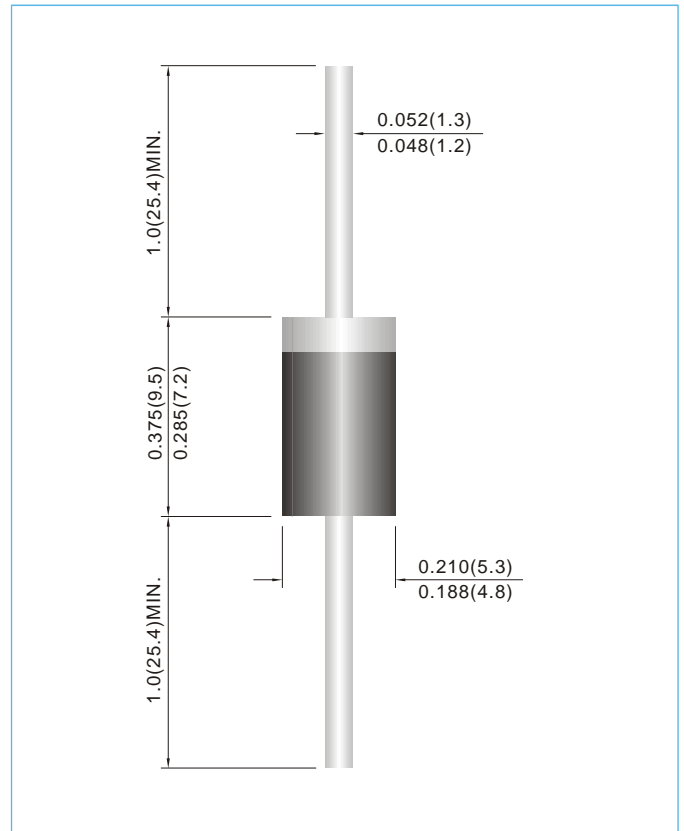
## SMC / DO-214AB

Unit : inch(mm)



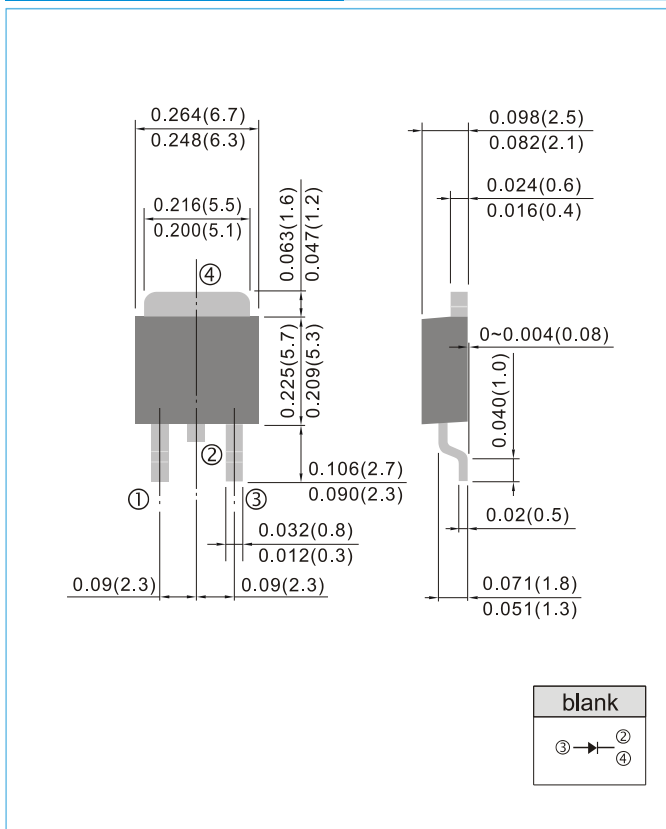
## DO-201AD

Unit : inch(mm)



## TO-252

Unit : inch(mm)



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