



MURC5J / MUR560M / MUR560S

SUPERFAST RECOVERY RECTIFIERS

Voltage

600 V

Current

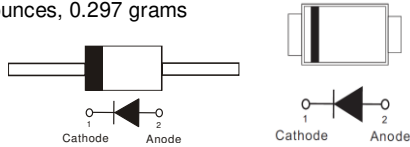
5 A

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 ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum rms voltage	V_{RMS}	420	V
Maximum dc blocking voltage	V_R	600	V
Maximum average forward current	$I_{F(AV)}$	5	A
Peak forward surge current : 8.3ms single half sine- wave superimposed on rated load	SMC DO-201AD TO-252 I_{FSM}	110 110 80	A
Maximum forward voltage at 5A	V_F	1.3	V
Maximum dc reverse current at rated dc blocking voltage	I_R	5	μA
Maximum reverse recovery time	(Note 5) T_{RR}	50	ns
Typical thermal resistance	SMC(Note 3) $R_{\theta JA}$	125	$^{\circ}\text{C/W}$
	SMC(Note 1) $R_{\theta JC}$	14	
	DO-201AD(Note 2) $R_{\theta JL}$	24	
	TO-252(Note 4) $R_{\theta JC}$	6.5	
Operating and storage temperature range	T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$

- Note : 1. Mounted on a FR4 PCB, single-sided copper, with 100cm² 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 : $I_F=0.5\text{A}$, $I_R=1\text{A}$, Recover to 0.25A



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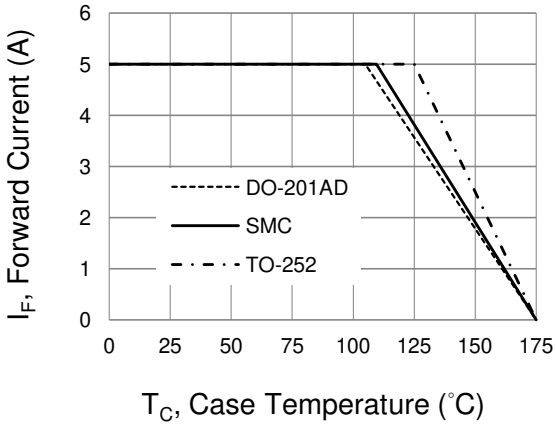


Fig.1 Forward Current Derating Curve

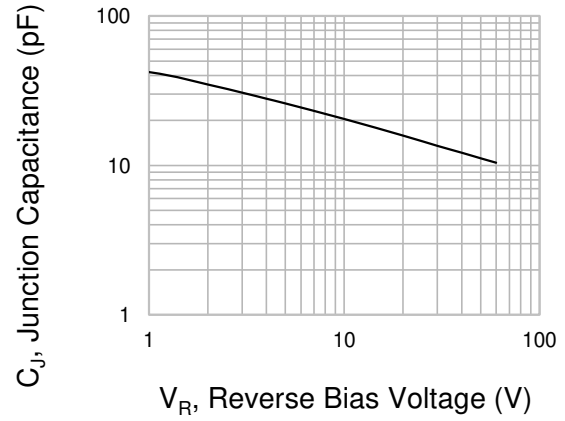


Fig.2 Typical Junction Capacitance

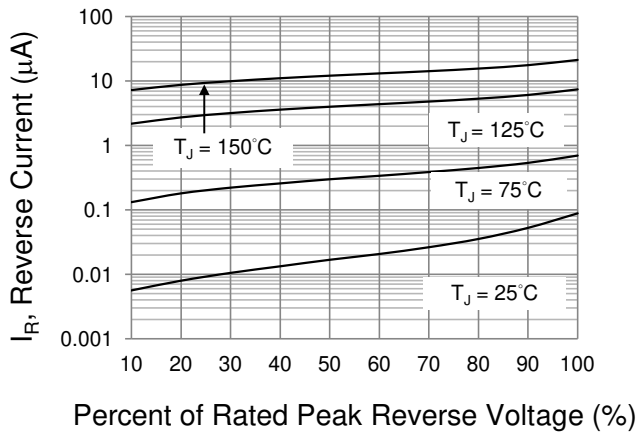


Fig.3 Typical Reverse Characteristics

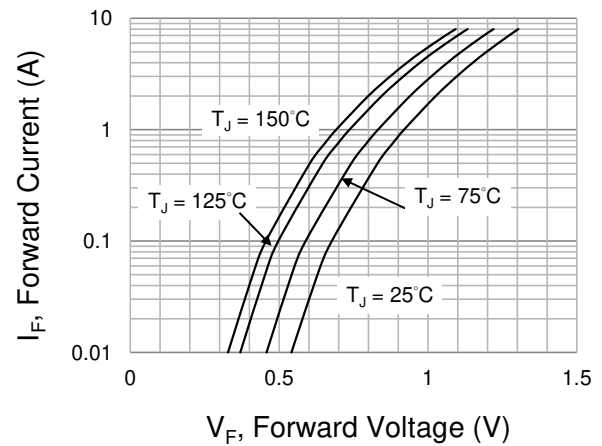


Fig.4 Typical Forward Characteristics



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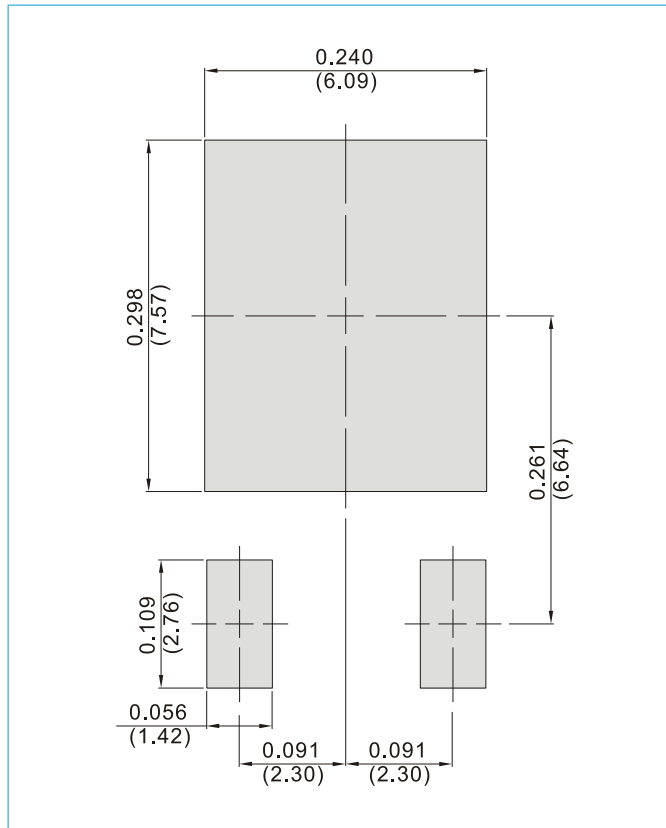
PART NO PACKING CODE VERSION

PART NO PACKING CODE	Package Type	Packing type	Marking	Version
MUR560M_AY_00001	DO-201AD	1.25K pcs / TB 52mm	MUR560M	Halogen free
MUR560S_L2_00001	TO-252	3K pcs / 13" rel	MUR560S	Halogen free
MURC5J_R1_00001	SMC	0.8K pcs / 7" reel	MURC5J	Halogen free

MOUNTING PAD LAYOUT

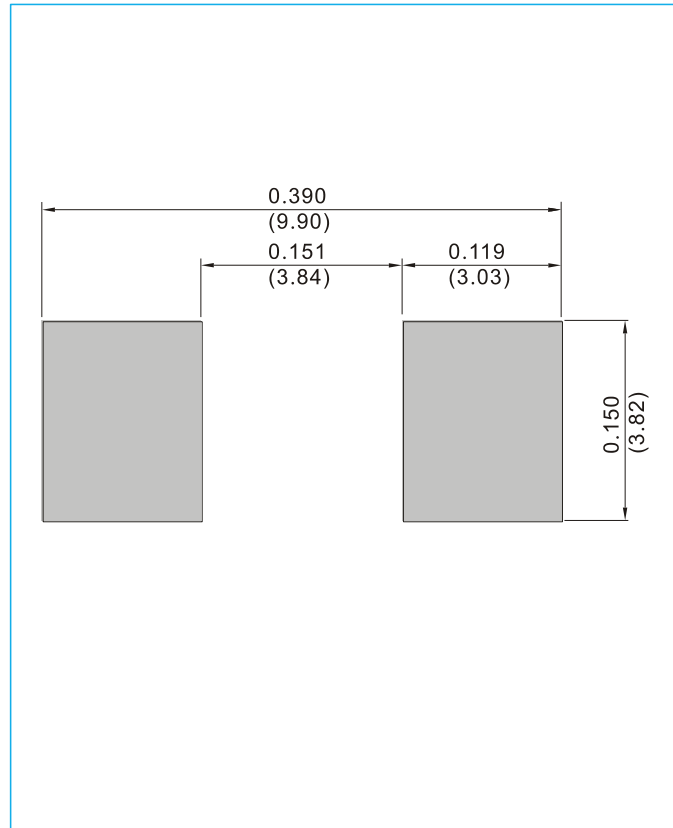
TO-252

Unit : inch(mm)



SMC / DO-214AB

Unit : inch(mm)

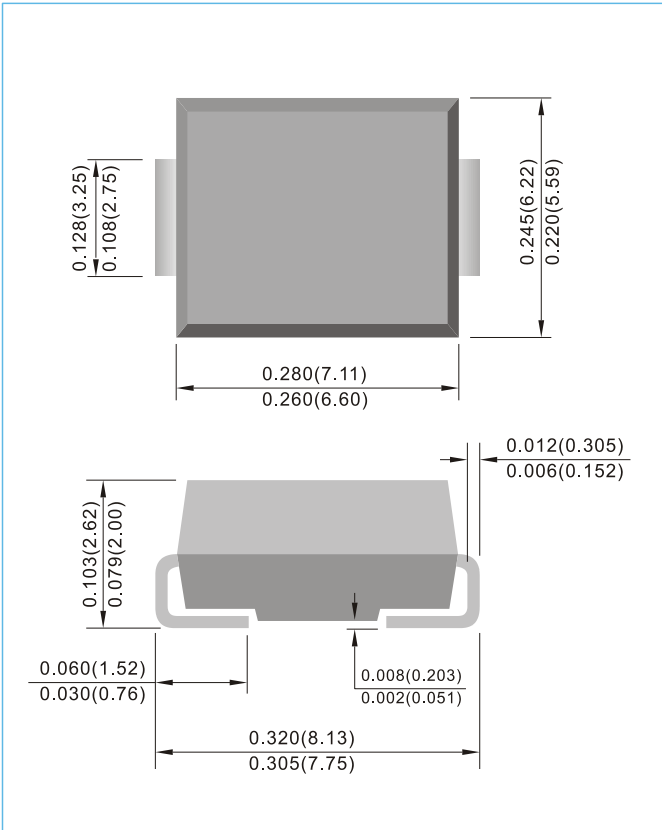




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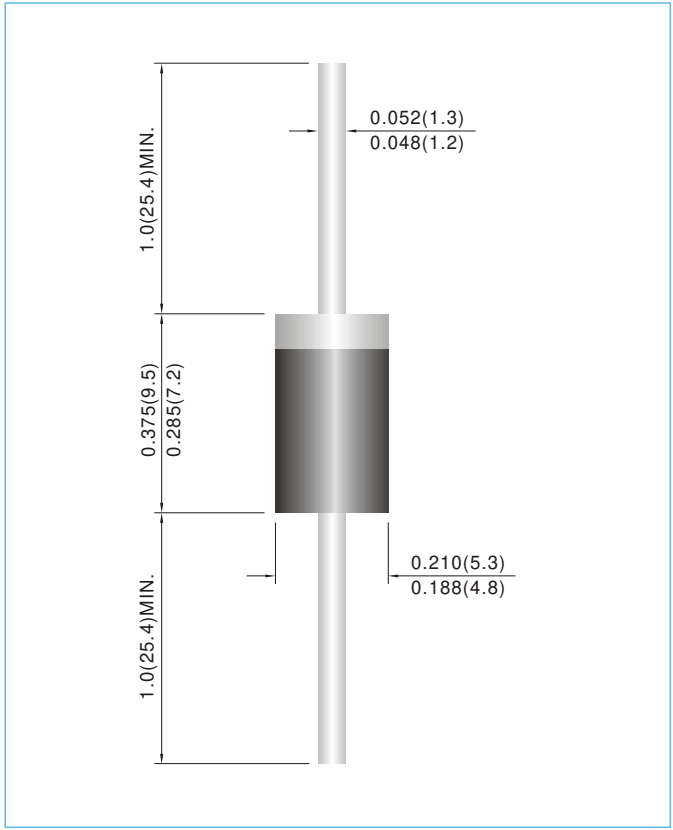
SMC / DO-214AB

Unit : inch(mm)



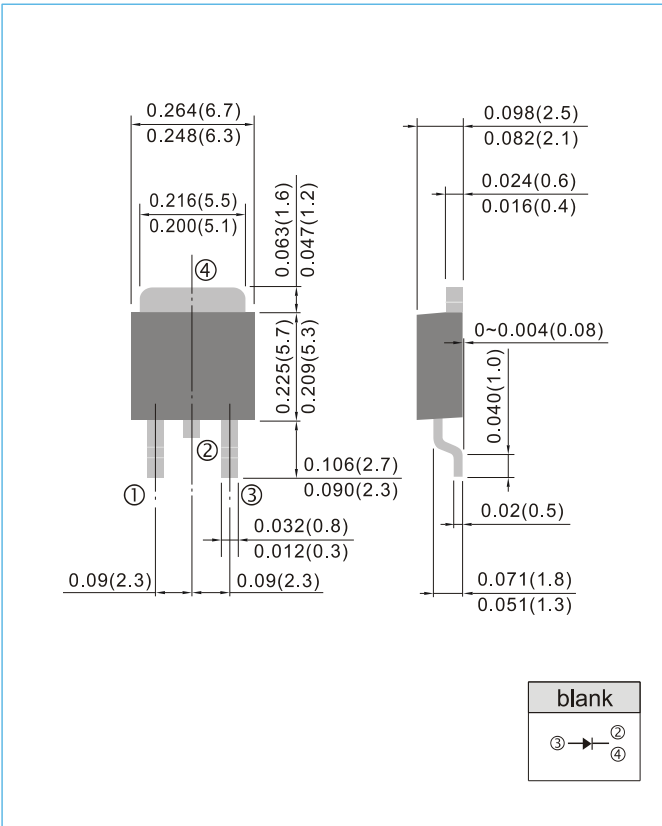
DO-201AD

Unit : inch(mm)



TO-252

Unit : inch(mm)





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