

MURC5J / MUR560M / MUR560S

SUPERFAST RECOVERY RECTIFIERS

Voltage

600 V

Current

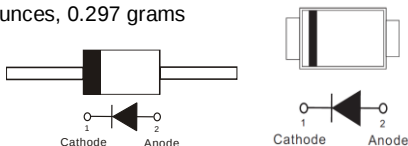
5 A

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



MUR560M DO-201AD



MURC5J SMC



MUR560S TO-252



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	I_{FSM}	110	A
	DO-201AD		110	
	TO-252		80	
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

MURC5J / MUR560M / MUR560S

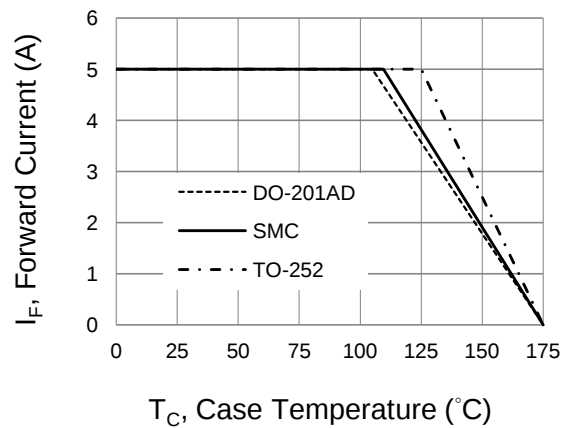


Fig.1 Forward Current Derating Curve

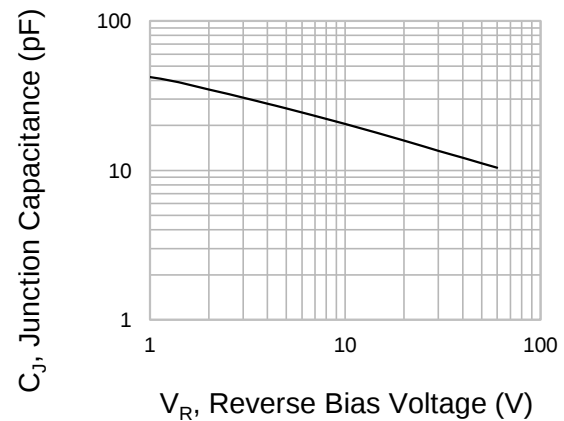


Fig.2 Typical Junction Capacitance

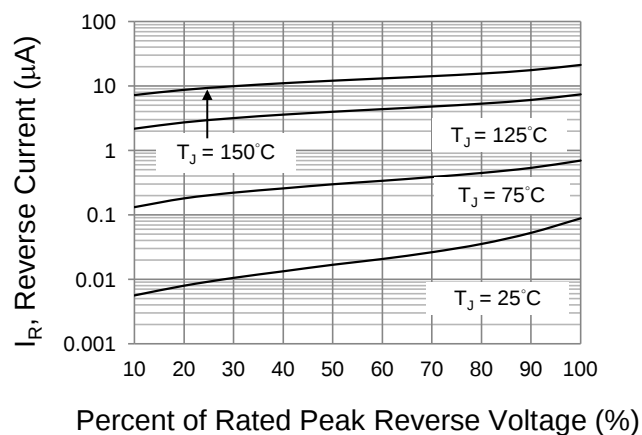


Fig.3 Typical Reverse Characteristics

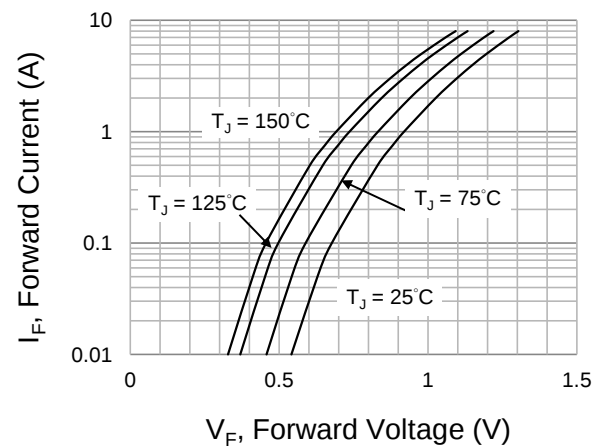


Fig.4 Typical Forward Characteristics

MURC5J / MUR560M / MUR560S

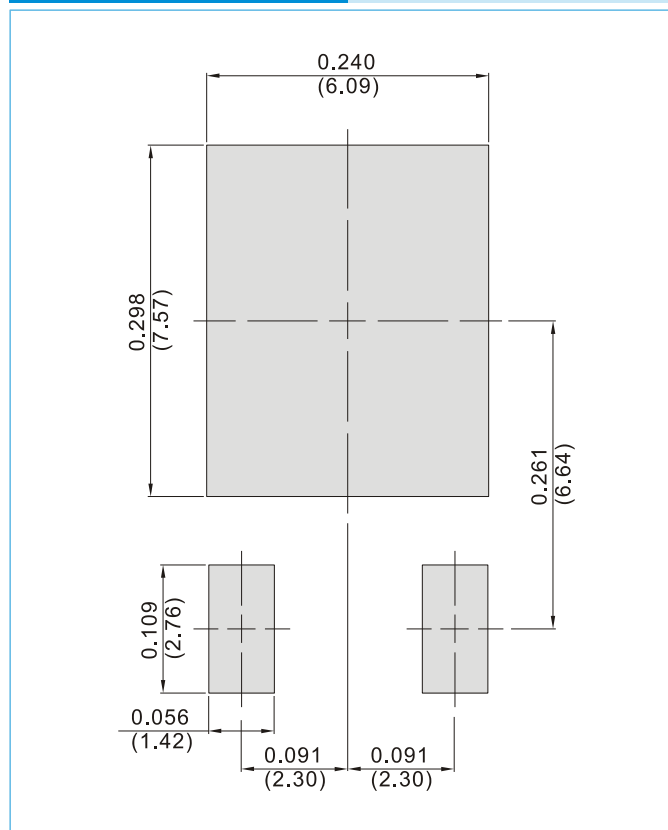
PART NO PACKING CODE VERSION

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

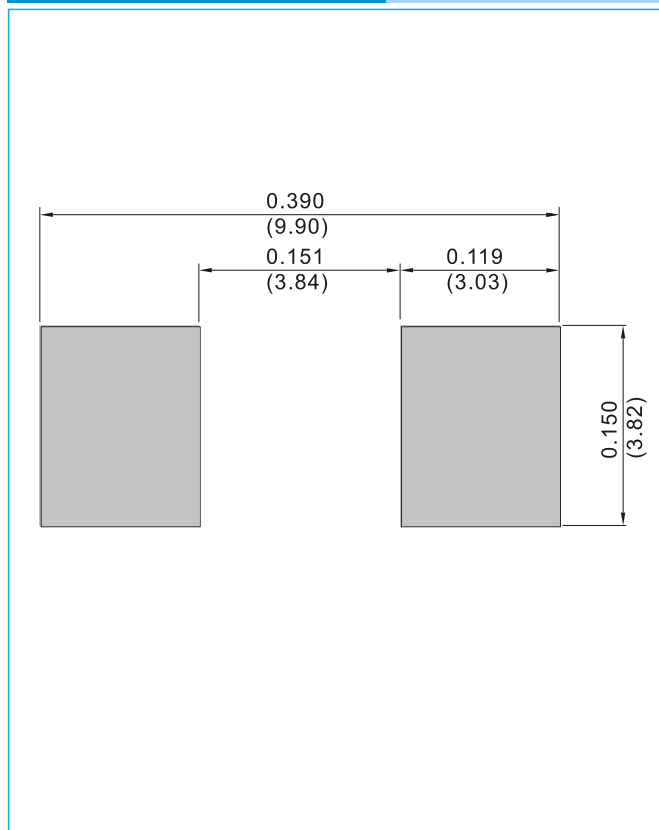
TO-252

Unit : inch(mm)



SMC / DO-214AB

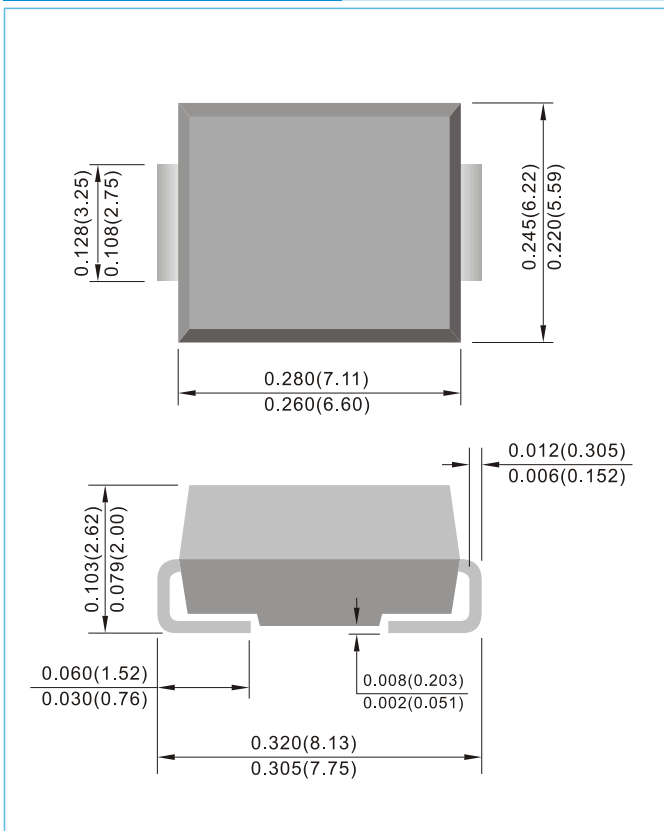
Unit : inch(mm)



MURC5J / MUR560M / MUR560S

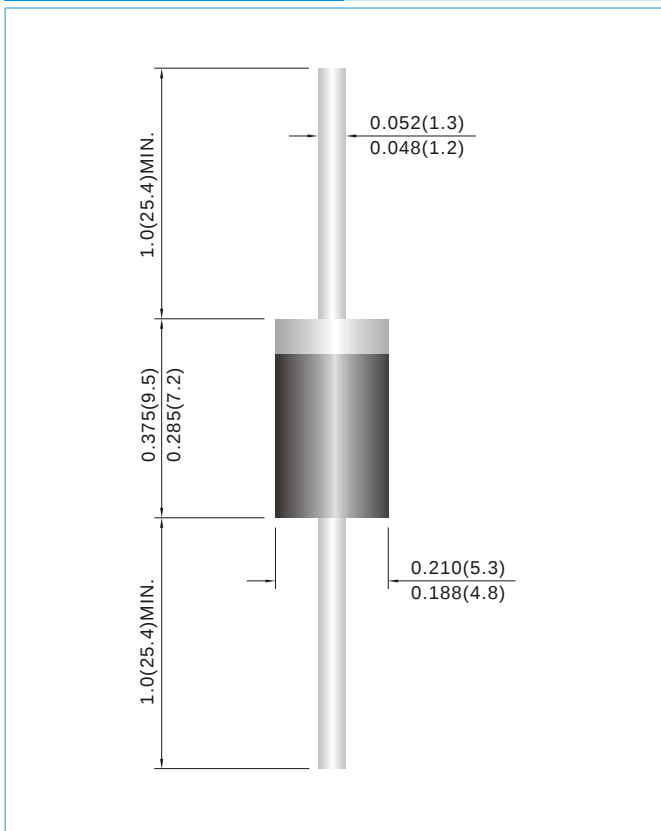
SMC / DO-214AB

Unit : inch(mm)



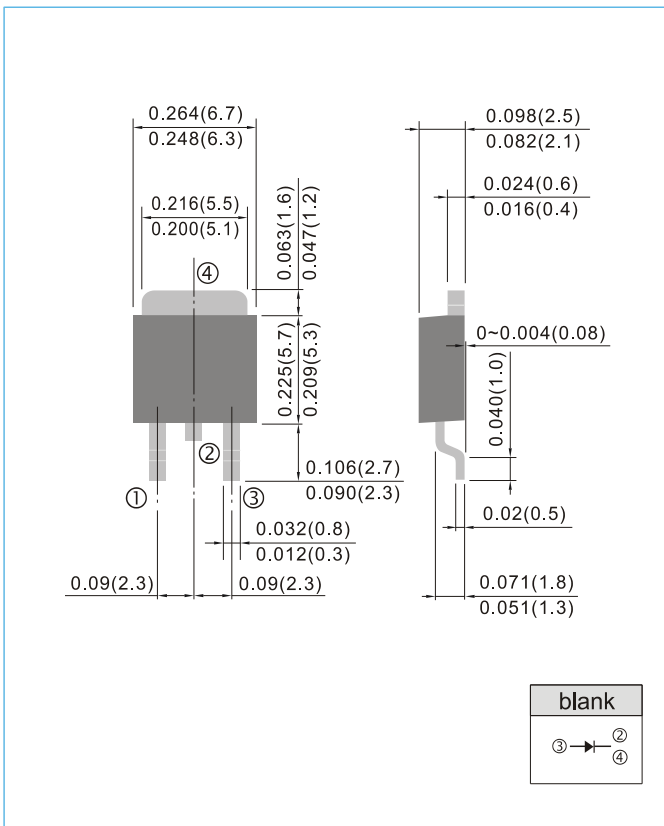
DO-201AD

Unit : inch(mm)



TO-252

Unit : inch(mm)





MURC5J / MUR560M / MUR560S

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.