



# UF5GI / UF504IG

## ULTRAFAST RECOVERY RECTIFIERS

**Voltage**

**400 V**

**Current**

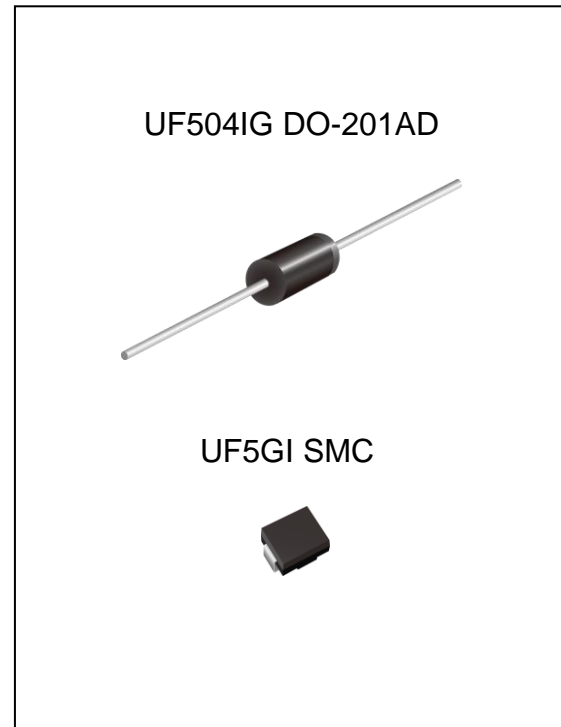
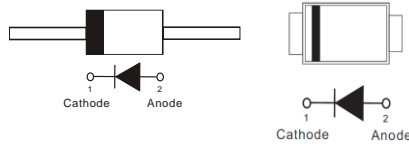
**5 A**

### 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 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)(SMC)

### Mechanical Data

- Case: Molded plastic, SMC, DO-201AD
- 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
- Marking: Part number



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

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	V
Maximum rms voltage	$V_{RMS}$	280	V
Maximum dc blocking voltage	$V_R$	400	V
Maximum average forward current	$I_{F(AV)}$	5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	80	A
Maximum forward voltage at 5A	$V_F$	1.25	V
Maximum dc reverse current at rated dc blocking voltage	$I_R$	1	$\mu\text{A}$
Maximum reverse recovery time	(Note 4) $T_{RR}$	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	
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^{\circ}\text{C}$

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

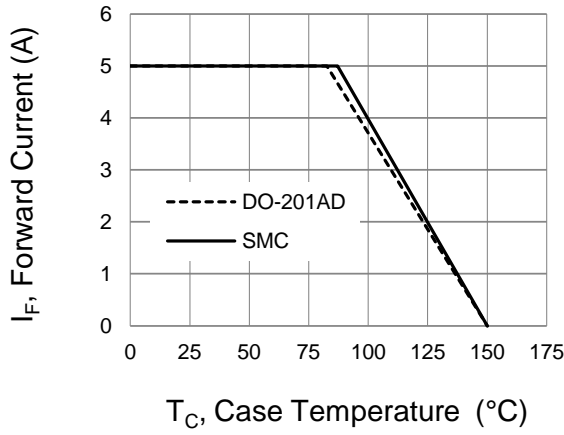
2. The testing condition of the thermal resistance (junction to lead) is based on 10 mm lead length between two 10cm x 10cm x 0.5mm copper pad

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

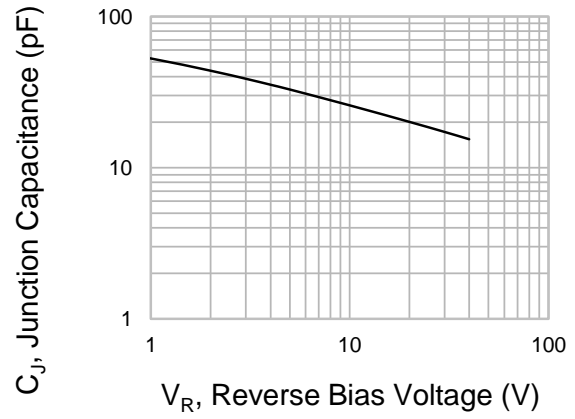
4. Reverse Recovery Test Conditions :  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ , Recover to 0.25A



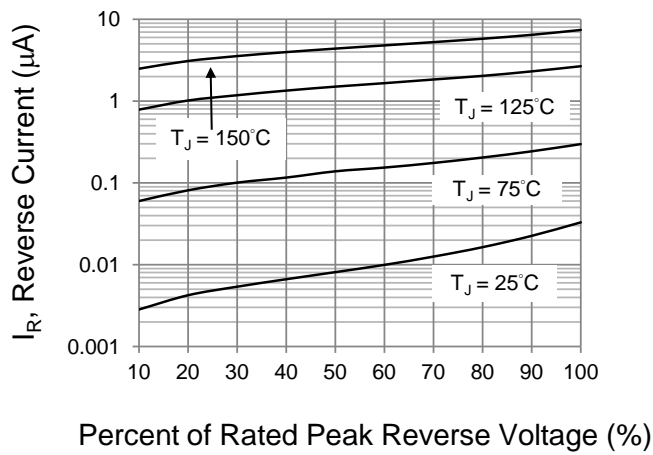
# UF5GI / UF504IG



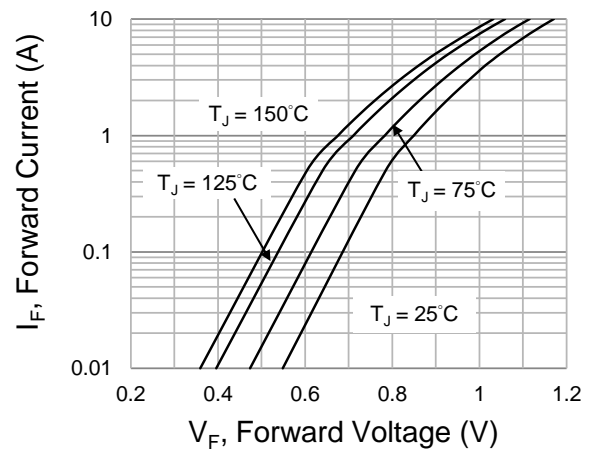
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



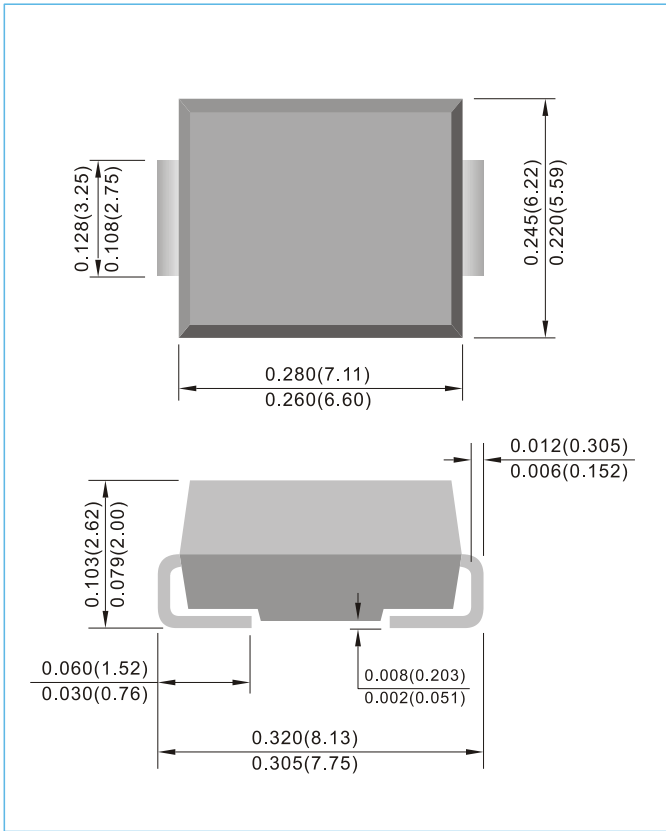
**Fig.4 Typical Forward Characteristics**



# UF5GI / UF504IG

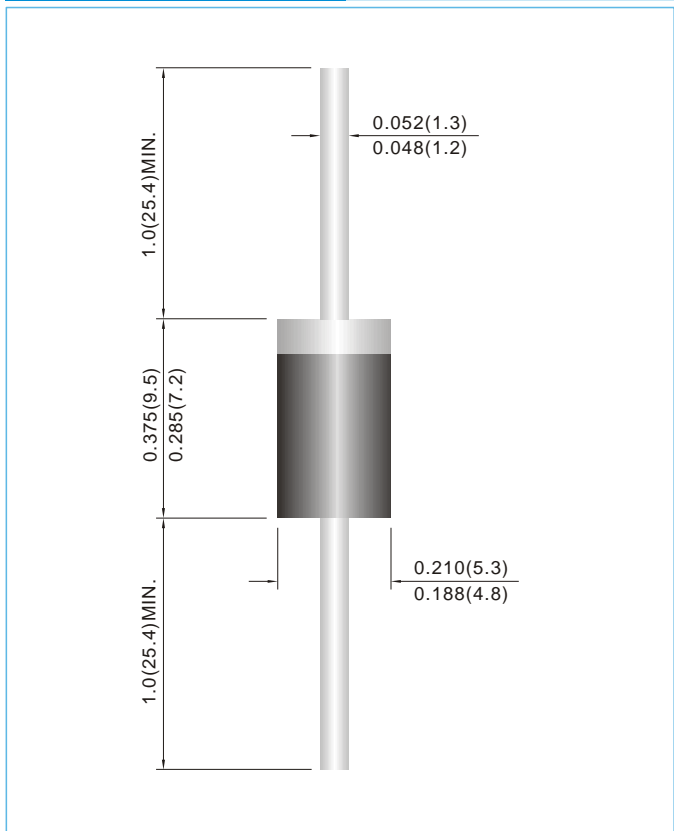
## SMC / DO-214AB

Unit : inch(mm)



## DO-201AD

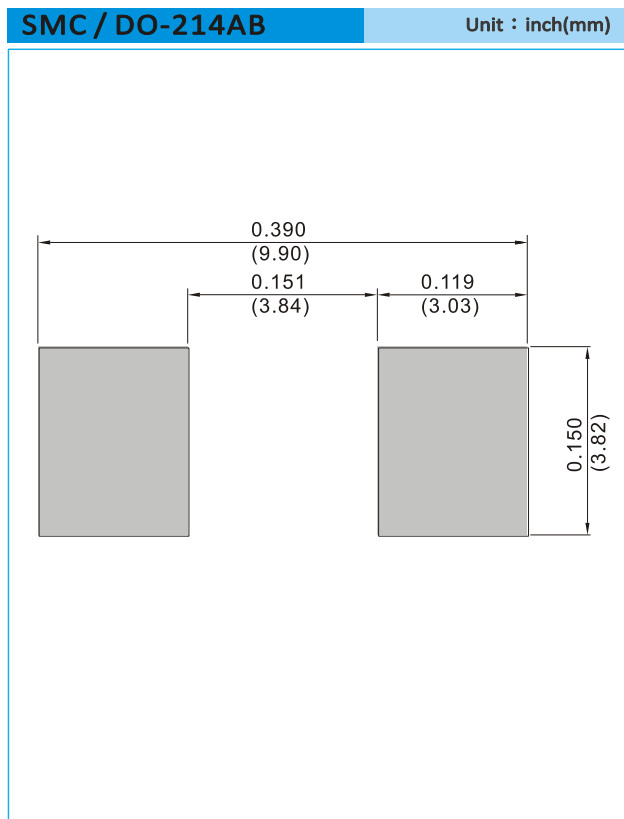
Unit : inch(mm)





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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R – 3K per 13" plastic Reel
  - T/R – 0.5K per 7" plastic Reel



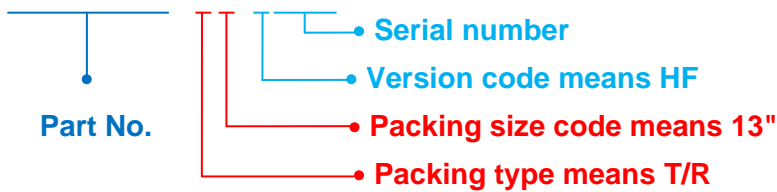
## UF5GI / UF504IG

### Part No\_packing code\_Version

UF504IG\_AY\_00001  
 UF504IG\_AY\_10001  
 UF504IG\_B0\_00001  
 UF504IG\_B0\_10001  
 UF504IG\_R2\_00001  
 UF504IG\_R2\_10001  
 UF5GI\_R1\_00001  
 UF5GI\_R2\_00001

### For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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