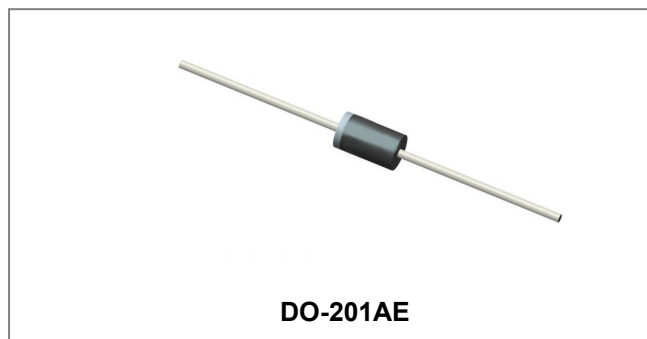


## UF5402SG ULTRAFAST RECTIFIER



### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Super Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Applications

- Switching Power Supply
- Power Switching Circuits
- General Purpose

### Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	-	200	V
Average Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C=105^\circ\text{C}$ , rectangular wave form	3	A
Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3ms, Half Sine pulse	45	A

### Electrical Characteristics:

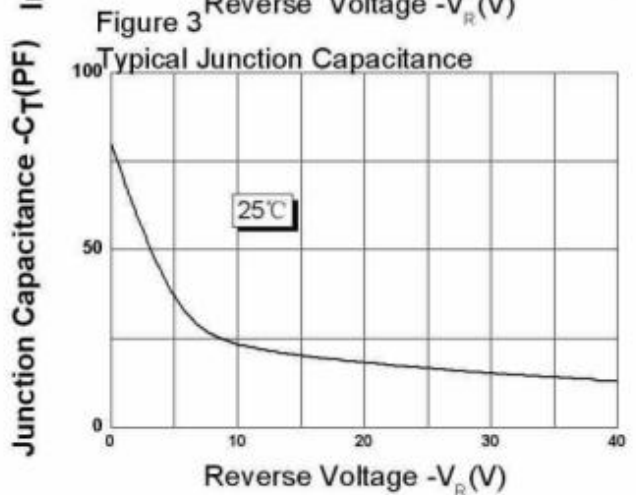
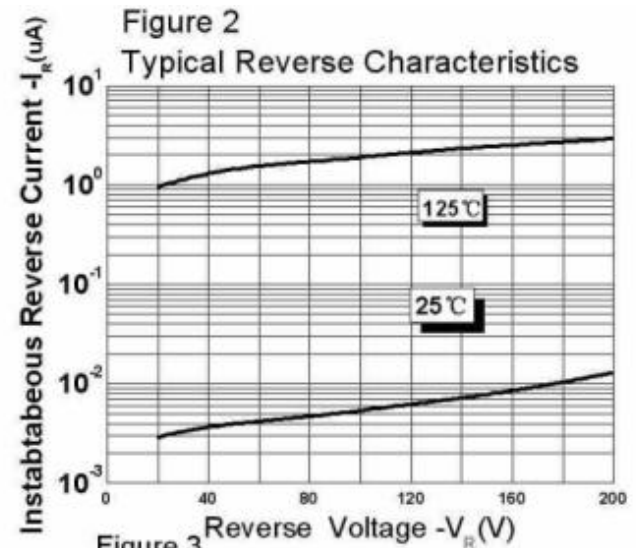
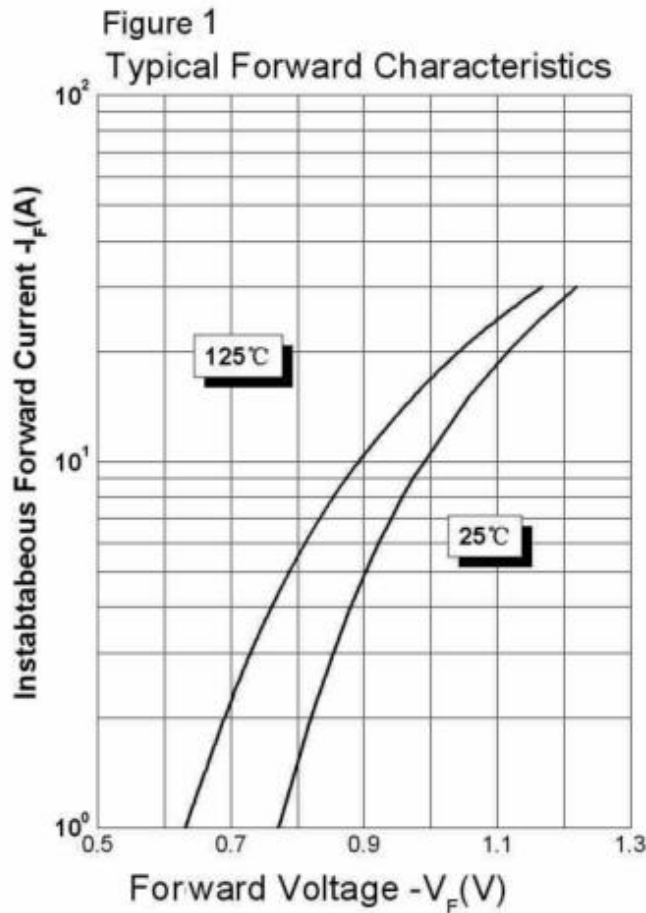
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	$V_{F1}$	@ 3A, Pulse, $T_J = 25^\circ\text{C}$	0.85	1.0	V
Reverse Current*	$I_{R1}$	@ $V_R$ = rated $V_R$ $T_J = 25^\circ\text{C}$	0.02	10	$\mu\text{A}$
	$I_{R2}$	@ $V_R$ = rated $V_R$ $T_J = 100^\circ\text{C}$	-	100	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F=500\text{mA}$ , $I_R=1\text{A}$ , and $I_m=250\text{mA}$	31	35	ns

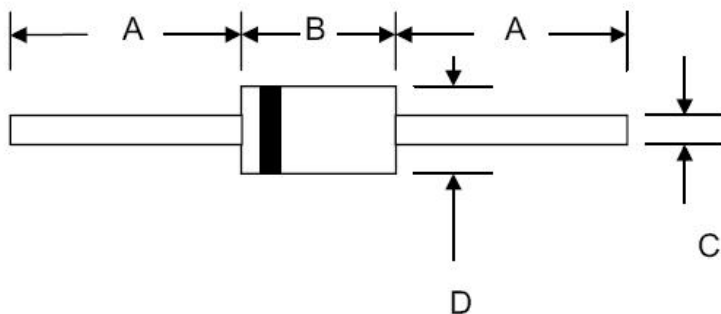
\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	$T_J$	-	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	$T_{\text{stg}}$	-	-55 to +150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Case	$R_{\theta\text{Jc}}$	DC operation	8	$^{\circ}\text{C}/\text{W}$
Approximate Weight	wt	-	1.00	g
Case Style		DO-201AE		

**Ratings and Characteristics Curves**



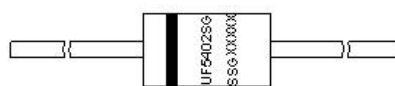
**Mechanical Dimensions DO-201AE**


SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	8.50	9.50	0.335	0.374
C	0.96	1.26	0.038	0.050
D	5.00	5.60	0.197	0.220

**Ordering Information**

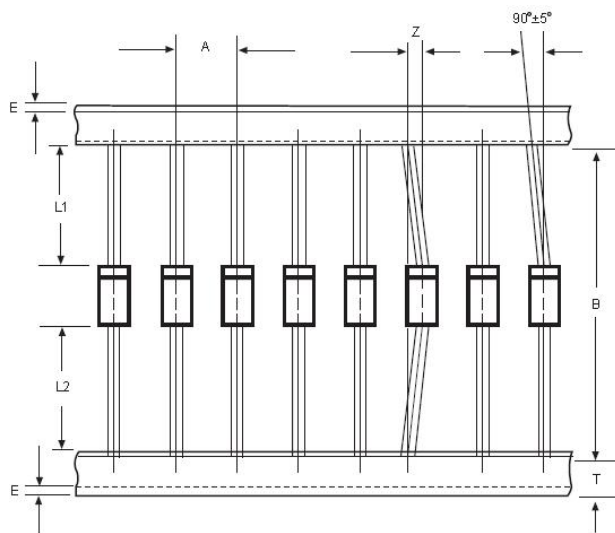
Device	Package	Shipping
UF5402SG	DO-201AE (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**


Where XXXXX is YYWWL

UF5402SG = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Carrier Tape Specification DO-201AE**


SYMBOL	Millimeters	
	Min.	Max.
A	9.50	10.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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