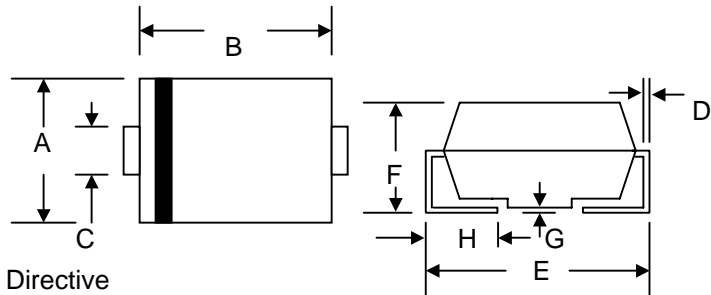


**Features**

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Ultra-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O
- Green Products in Compliance with the RoHS Directive



**Mechanical Data**

- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

SMB/DO-214AA				
Dim	Min	Max	Min	Max
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.91	2.11	0.075	0.083
D	0.152	0.305	0.006	0.012
E	5.08	5.59	0.2	0.220
F	2.13	2.44	0.084	0.096
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.029	0.05
			in mm	In inch

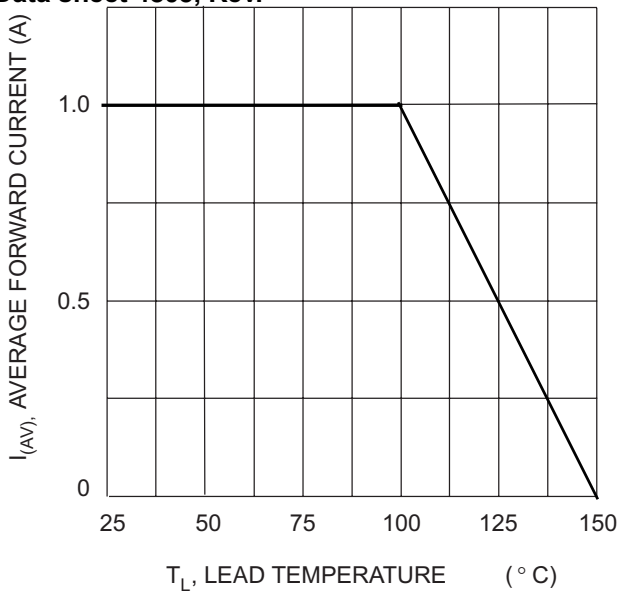
**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	UF1A-G	UF1B-G	UF1D-G	UF1G-G	UF1J-G	UF1K-G	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V
Working Peak Reverse Voltage	V <sub>RWM</sub>							
DC Blocking Voltage	V <sub>R</sub>							
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	V
Average Rectified Output Current @T <sub>L</sub> = 100°C	I <sub>o</sub>	1.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) @T <sub>A</sub> = 55°C	I <sub>FSM</sub>	30						A
Forward Voltage @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.0		1.4		1.7		V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	10 500						μA
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	50				100		nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	15						pF
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	30						K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-50 to +150						°C

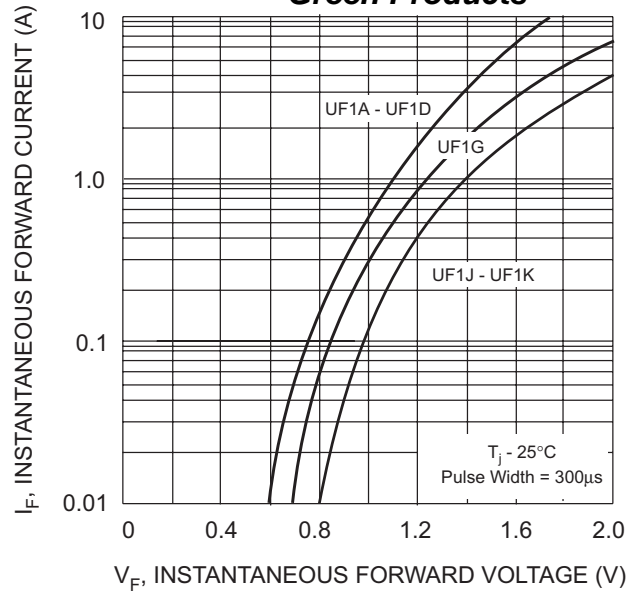
Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A,  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.

Data sheet 4805, Rev. -

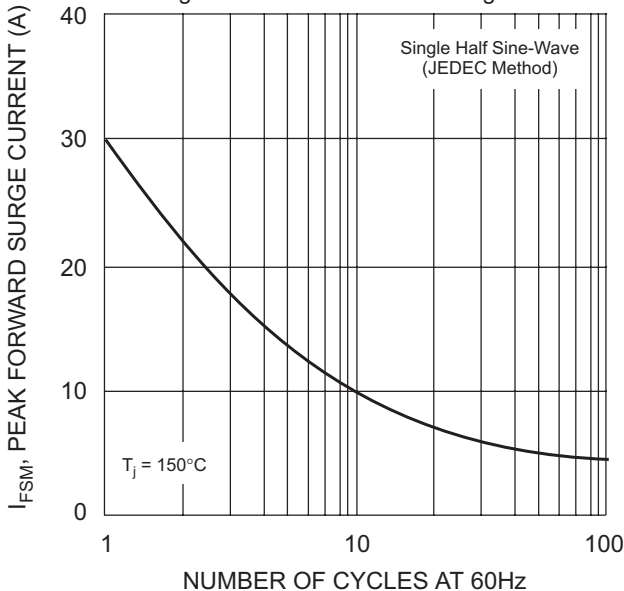
**Green Products**



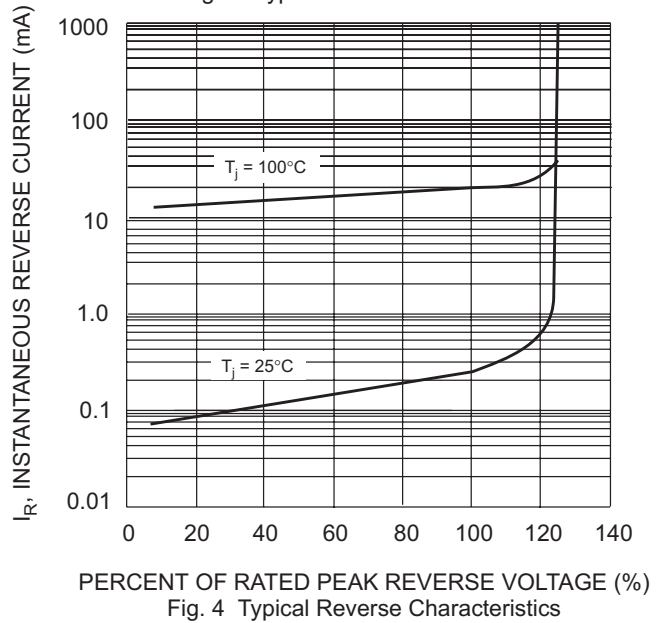
$T_L$ , LEAD TEMPERATURE ( $^{\circ}$  C)  
Fig. 1 Forward Current Derating Curve



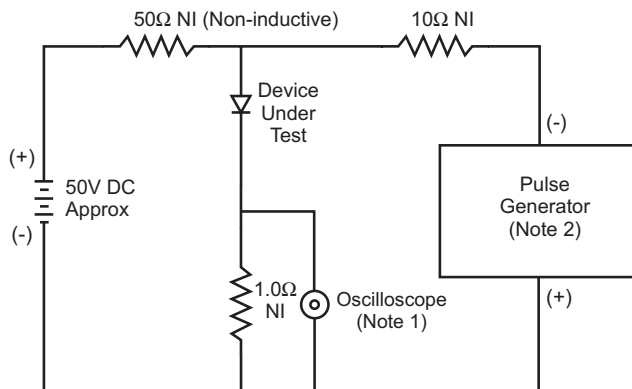
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



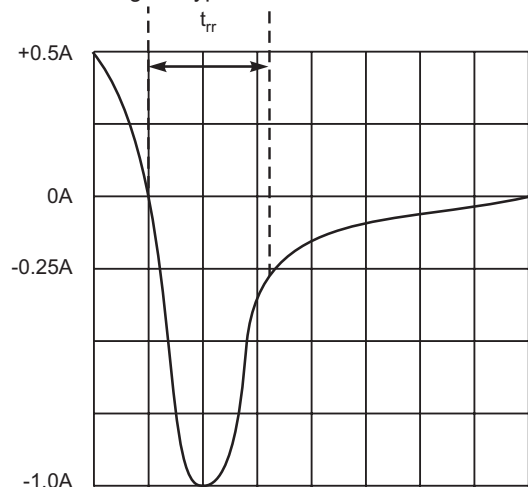
NUMBER OF CYCLES AT 60Hz  
Fig. 3 Forward Surge Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 4 Typical Reverse Characteristics



- Notes:  
1. Rise Time = 7.0ns max. Input Impedance = 1.0M $\Omega$ , 22pF.  
2. Rise Time = 10ns max. Input Impedance = 50 $\Omega$ .



Set time base for 10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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