UF1A THRU UF1K

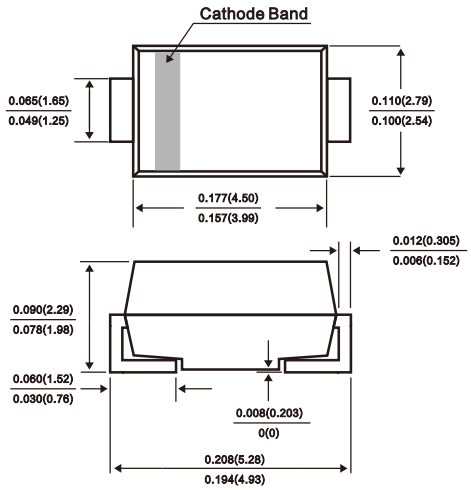
50V-800V 1.0A

SURFACE MOUNT RECTIFIER

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260 ¢J/10 seconds at terminals

SMA(DO-214AC)



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case:JEDEC DO-214AC,molded plastic
Terminals: Solderable per
MIL- STD-202,Method 208
Polarity: Color band denotes cathode
Weight: 0.003 ounces,0.093 grams
Mounting position: Any

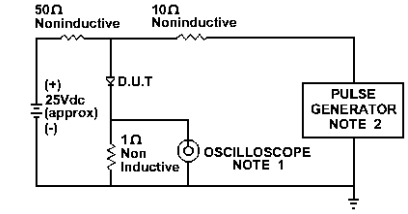
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOLS	UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current, at T_L=100 °C	$I_{(AV)}$	1.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method) T_A=55 °C	I_{FSM}	30.0						Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.0			1.4	1.7		Volts
Maximum DC Reverse Current T_A=25 °C At Rated DC Blocking Voltage T_A=100°C	I_R	10.0 100						μA
Maximum Reverse Recovery Time (Note 1) T_J=25°C	T_{RR}	50.0				100.0		ns
Typical Junction capacitance (Note 2)	C_J	17.0						pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JL}$	30						°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-50 to +150						°C

NOTES:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
2. Measured at 1 MHz and Applied reverse voltage of 4.0 volts
3. 8.0mm^2 (.013mm thick) land areas



NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

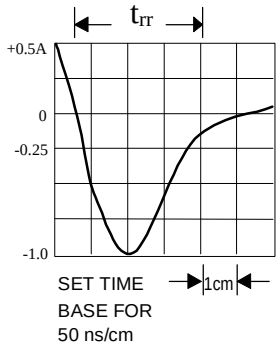


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

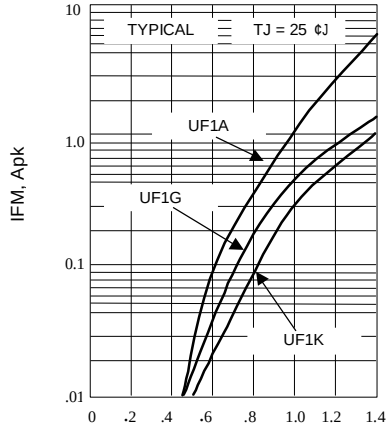


Fig. 2-FORWARD CHARACTERISTICS

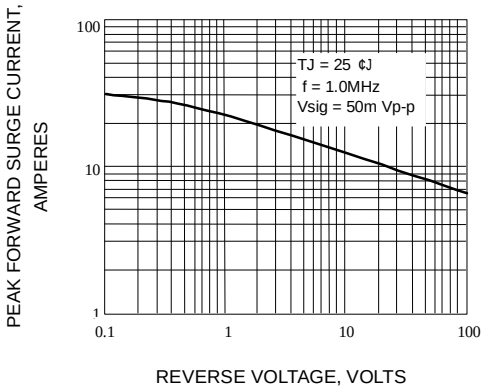


Fig. 3- TYPICAL JUNCTION CAPACITANCE

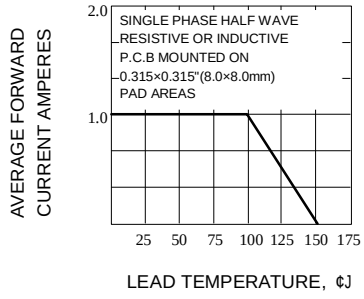


Fig. 4- FORWARD CURRENT DERATING CURVE

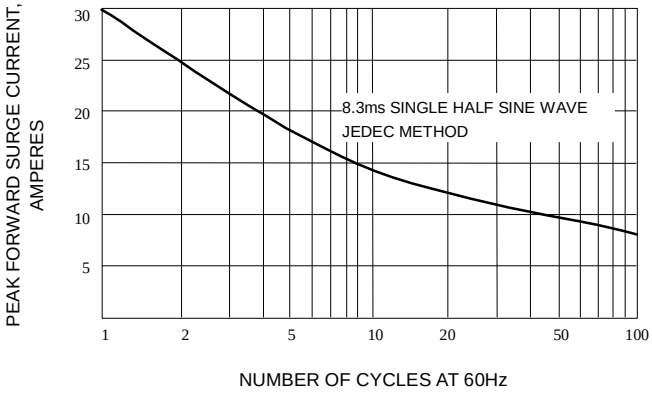


Fig. 5-PEAK FORWARD SURGE CURRENT