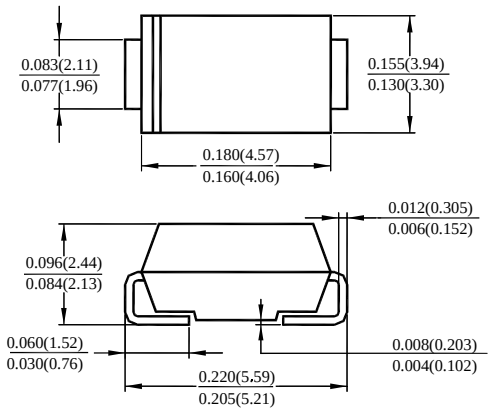
SURFACE MOUNT ULTRAFAST RECTIFIER

UF2A---UF2K

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



Dimensions in inches and (millimeters)

DO-214AA (SMB)

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic
Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
Polarity: Indicated by cathode band

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ^{o}C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	UF2A	UF2B	UF2D	UF2G	UF2J	UF2K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at T_L=90^{o}C	I_{AV}	2.0						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	50						A
Maximum Forward Voltage at 2.0A	V_F	1.0			1.4	1.7		V
Maximum DC Reverse Current at T_A=25^{o}C Rated DC Blocking Voltage T_A=100^{o}C	I_R	10.0 200						uA
Typical Junction capacitance (Note 2)	C_J	28						pF
Typical Thermal Resistance(Note 3)	RθJL	20						^{o}C / W
Maximum Reverse Recovery Time (Note 1)	T_{RR}	50				100		ns
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-50 TO +150						^{o}C

NOTES:1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
2. Measured at 1 MHz and applied V_r = 4.0 volts.
3. 8.0 mm^2 (.013mm thick) land areas.

UF2A---UF2K Typical Characteristics

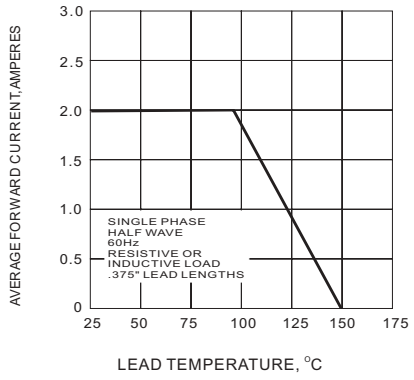


Fig.1 FORWARD CURRENT DERATING CURVE

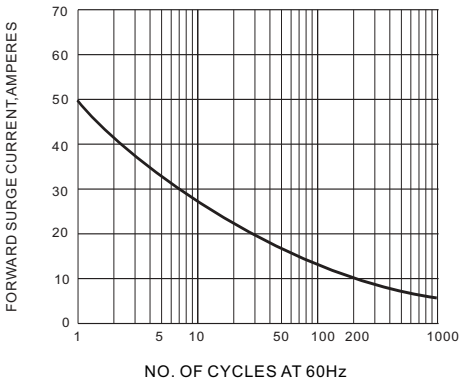


Fig.6 PEAK FORWARD SURGE CURRENT

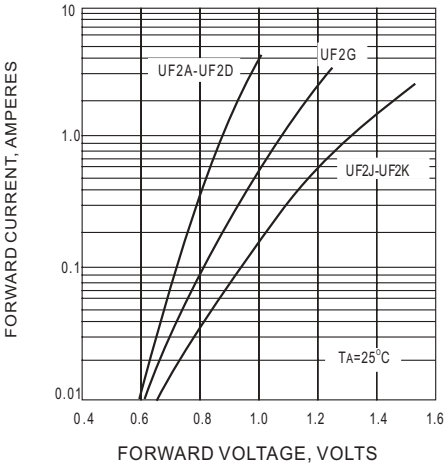


Fig.3 FORWARD CHARACTERISTICS

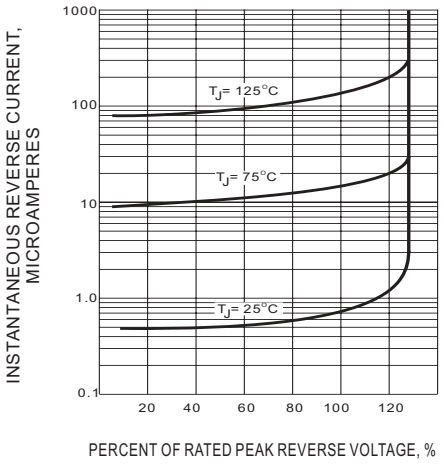


Fig.4 TYPICAL REVERSE CHARACTERISTICS

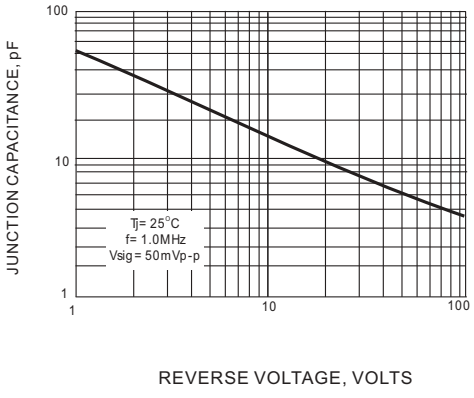


Fig.5 TYPICAL JUNCTION CAPACITANCE