

UF3A THRU UF3K

SURFACE MOUNT ULTRAFAST RECTIFIER
VOLTAGE - 50 TO 800 Volts CURRENT - 3.0 Amperes

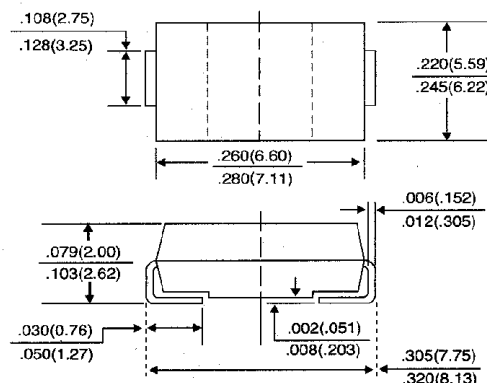
FEATURES

- 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°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic
 Terminals: Solder plated solderable per MIL-STD-750, Method 2026
 Polarity: Indicated by cathode band
 Standard Packaging: 16mm tape (EIA-481)
 Weight: 0.007 ounces, 0.21 gram

SMC/DO-214AB



Dimensions in inches and (millimeters)

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	UF3A	UF3B	UF3D	UF3G	UF3J	UF3K	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current T _L = 75°C	I(AV)	3.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T _A = 55°C	IFSM	100.0						Amps
Maximum Instantaneous Forward Voltage at 3.0A	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	10.0 300						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	75.0				63		pf
Maximum Thermal Resistance (NOTE 3)	ROJL	15						°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-50 to +150						°C

NOTES:

1. Reverse Recovery Test Conditions: IF = 0.5A, IR = 1.0A, Irr = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.
3. 8.0mm² (.013mm thick) land areas.

RATING AND CHARACTERISTIC CURVES UF3A THRU UF3K

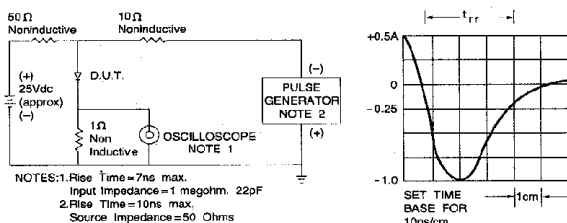


FIG. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

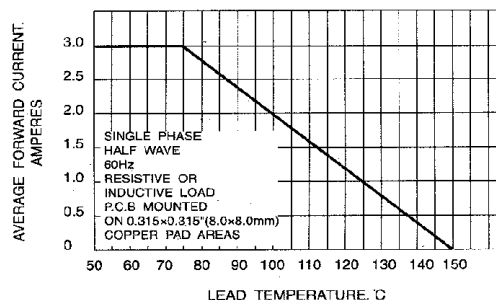


FIG. 2 - MAXIMUM AVERAGE FORWARD CURRENT RATING

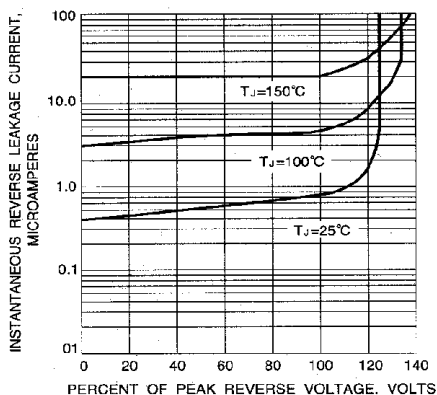


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

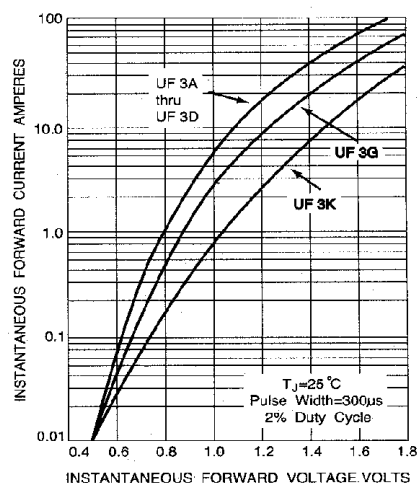


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

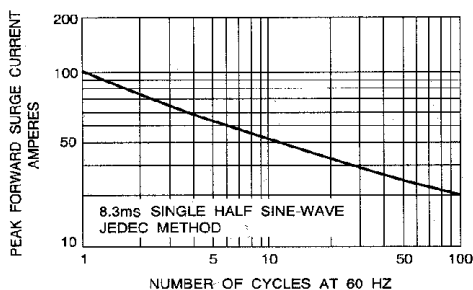


FIG. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

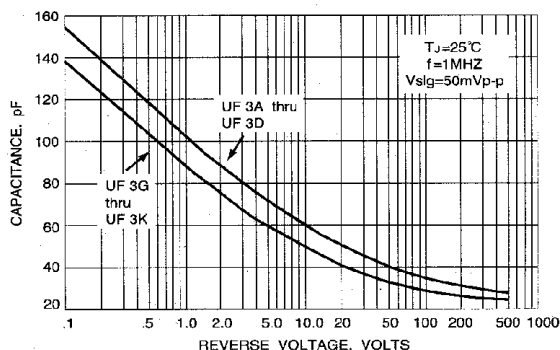


FIG. 6 - TYPICAL JUNCTION CAPACITANCE