

FR1A THRU FR1K

SURFACE MOUNT FAST SWITCHING RECTIFIER VOLTAGE - 50 to 800 Volts CURRENT - 1.0 Ampere

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast recovery times for high efficiency
- Plastic package has Underwriters Laboratory

Flammability Classification 94V-O

- Glass passivated junction
- High temperature soldering:
260 /10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic

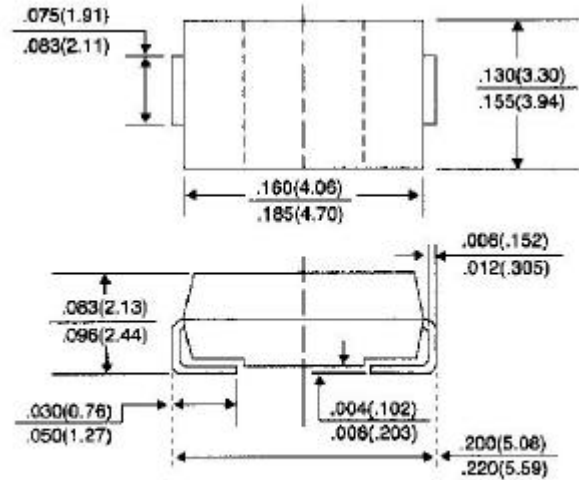
Terminals: Solder plated, solderable per MIL-STD-750,
Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 0.093 gram

SMB/DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOLS	FR1A	FR1B	FR1D	FR1G	FR1J	FR1K	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 $T_L=90$	$I_{(AV)}$	1.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	30.0						Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.3						Volts
Maximum DC Reverse Current $T_A=25$ At Rated DC Blocking Voltage $T_A=125$	I_R	5.0 150						A
Maximum Reverse Recovery Time (Note 1) $T_J=25$	T_{RR}	150				250	500	nS
Typical Junction capacitance (Note 2)	C_J	12						pF
Maximum Thermal Resistance (Note 3)	R_{JL}	30						/W
Operating and Storage Temperature Range	T_J, T_{STG}	-50 to +150						

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 reverse voltage of 4.0 volts
3. 8.0mm² (.013mm thick) land areas

RATING AND CHARACTERISTIC CURVES

FR1A THRU FR1K

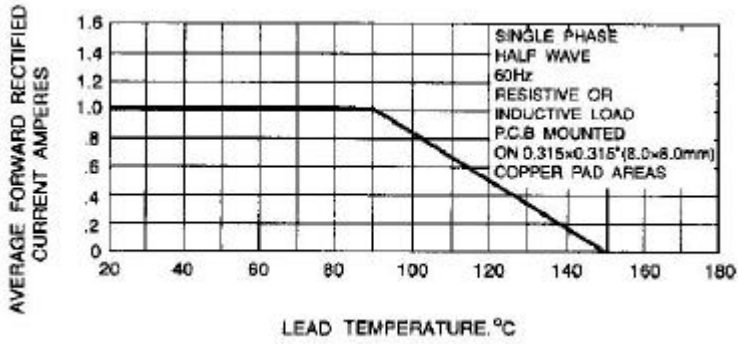


Fig. 1-FORWARD CURRENT DERATING CURVE

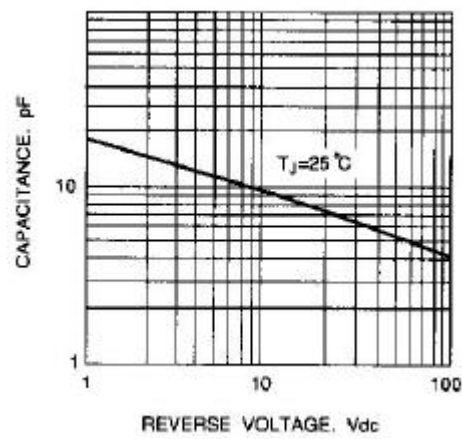


Fig. 2-TYPICAL JUNCTION CAPACITANCE

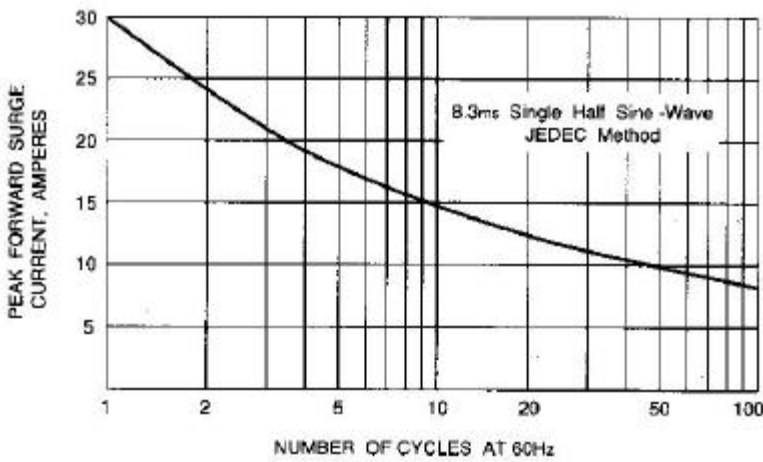


Fig. 3-PEAK FORWARD SURGE CURRENT

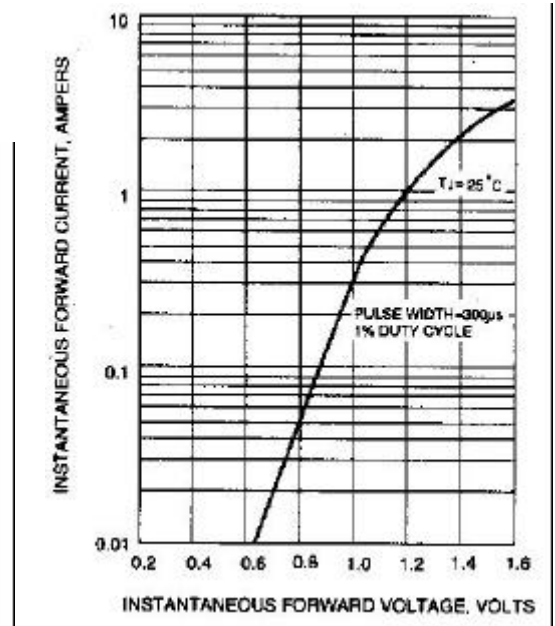


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

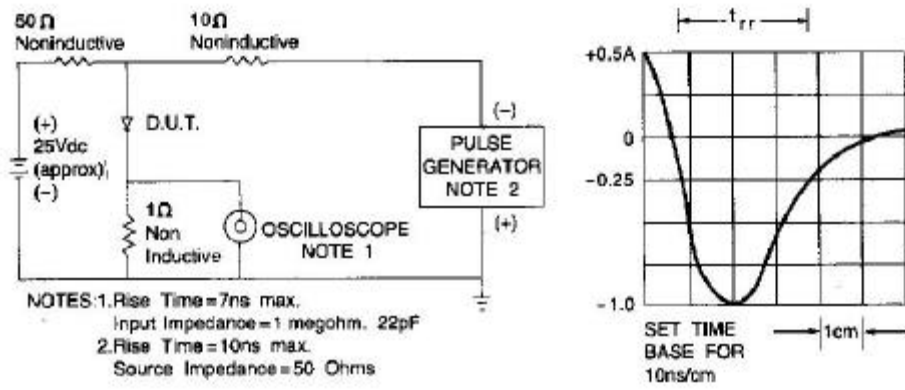


Fig. 5-REVERSE RECOVERY TIME CHARACTERISTICS AND TEST CIRCUIT DIAGRAM

This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.