

# D1FS4

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**PRV : 40 Volts**  
**I<sub>o</sub> : 1.1 Ampere**

**FEATURES :**

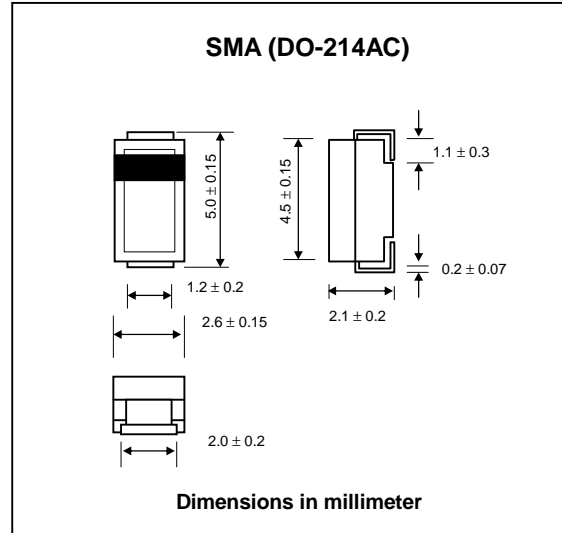
- \* Small SMT
- \* T<sub>j</sub> 150 °C
- \* Pb / RoHS Free

**APPLICATION :**

- \* Switching power supply
- \* DC/DC converter
- \* Telecommunication

**MECHANICAL DATA :**

- \* Case : SMA Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.067 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	V
Maximum RMS Voltage	V <sub>RMSM</sub>	45	V
Maximum Average Rectified Forward Current ( 50 Hz sine wave, R - load )	I <sub>o</sub>	1.1 (Note 1) 0.85 (Note 2)	A
Maximum Peak Forward Surge Current ( 50 Hz sine wave, Non - repetitive 1 cycle peak value, T <sub>j</sub> = 125 °C )	I <sub>FSM</sub>	30	A
Maximum Forward Voltage at I <sub>F</sub> = 1.1 A ( Pulse Measurement )	V <sub>F</sub>	0.55	V
Maximum Reverse Current at V <sub>R</sub> = V <sub>RM</sub> ( Pulse Measurement )	I <sub>R</sub>	1.0	mA
Typical Thermal Resistance Junction to Lead	R <sub>θJL</sub>	23	°C/W
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	108 ( On alumina substrate ) 157 ( On glass - epoxy substrate )	°C/W
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150	°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150	°C

**Notes :**

- (1) Ta = 51 °C On alumina substrate.
- (2) Ta = 44 °C On glass - epoxy substrate.

RATING AND CHARACTERISTIC CURVES ( D1FS4 )

FIG.1 - FORWARD CURRENT DERATING CURVE

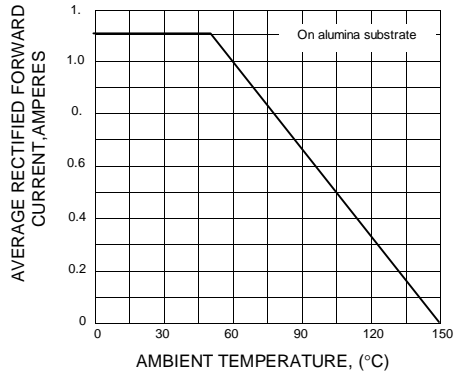


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

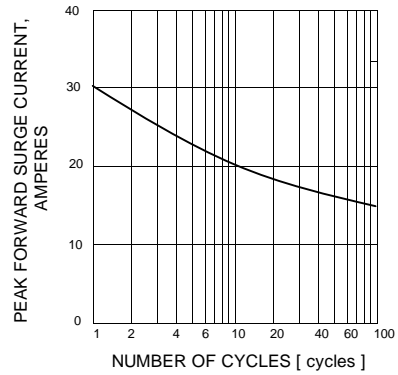


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

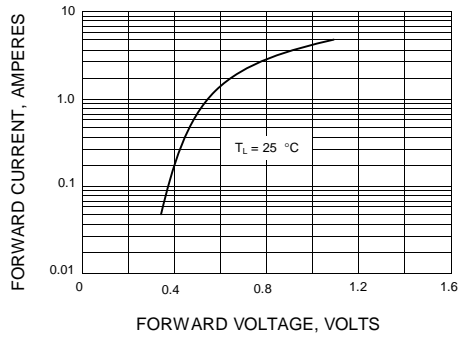


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

