



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**FR03AFL
THRU
FR03MFL**

TECHNICAL SPECIFICATIONS OF FAST RECOVERY SURFACE MOUNT GLASS PASSIVATED RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 0.3 Ampere

FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Low profile space
- * Low forward voltage drop
- * High forward surge capability
- * Glass passivated junction

MECHANICAL DATA

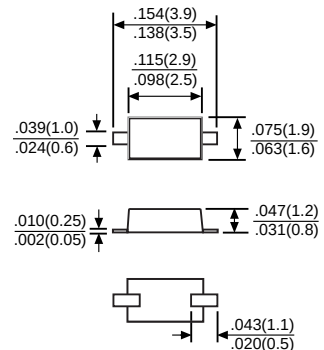
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.017 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



SOD-123FL



Dimensions in inches and (millimeters)

		SYMBOL	FR03AFL	FR03BFL	FR03DFL	FR03GFL	FR03JFL	FR03KFL	FR03MFL	UNITS
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current		I _O	0.3						Amps	
Peak Forward Surge Current I _{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	10						Amps	
Maximum Forward Voltage at 0.3A DC		V _F	1.3						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	I _R	5.0						uAmps	
	@T _A = 125°C		50							
Maximum reverse recovery time at I _F = 0.5A , I _R = 1.0A , I _{rr} = 0.25A		t _{rr}	150				250	500	nS	
Typical thermal resistance		R _{θJA}	60						°C/W	
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to + 150						°C	

NOTES :1. Mounted on FR-4 P.C.B. with 0.9X1.5 mm copper pads areas.

RATING AND CHARACTERISTIC CURVES (FR03AFL THRU FR03MFL)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

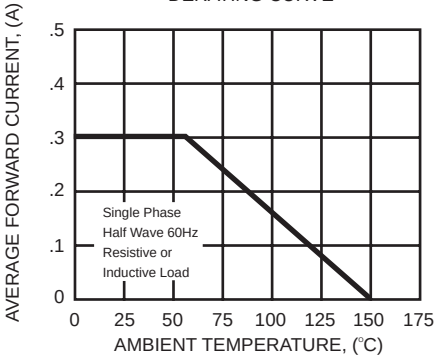


FIG. 2 - MAXIMUM NON-REPETITIVE FOREARD SURGE CURRENT

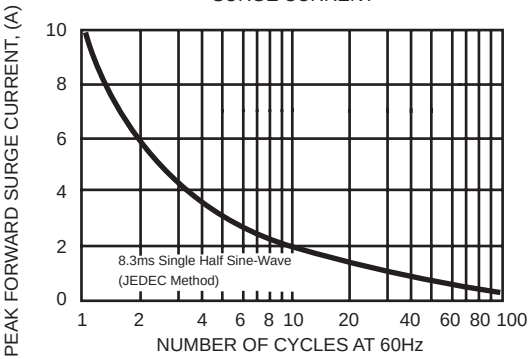


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

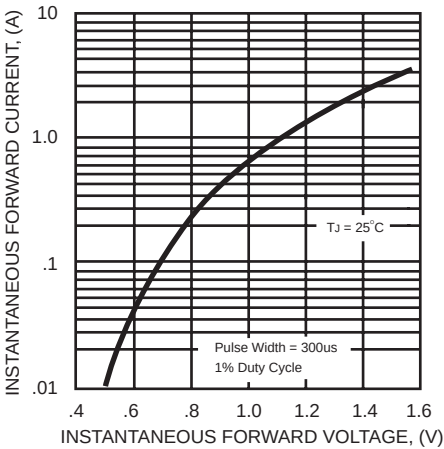


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

