



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

FR05AFL
THRU
FR05MFL

TECHNICAL SPECIFICATIONS OF FAST RECOVERY SURFACE MOUNT GLASS PASSIVATED RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 0.5 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

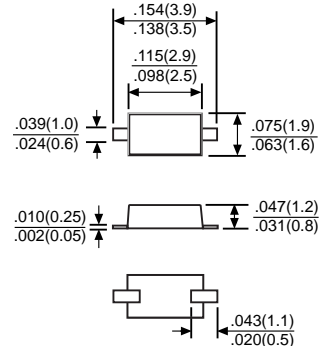
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.017 gram

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	FR05AFL	FR05BFL	FR05DFL	FR05GFL	FR05JFL	FR05KFL	FR05MFL	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	0.5							Amps
Peak Forward Surge Current I _{FSM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	15							Amps
Maximum Forward Voltage at 0.5A DC	V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _A = 25°C	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 _r	150				250	500		nS
Typical thermal resistance	R _{θJA}	180							°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 (FR05AFL THRU FR05MFL)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

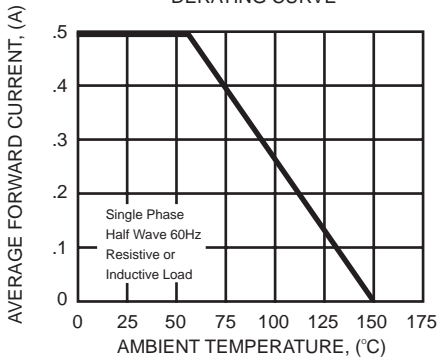


FIG. 2 - MAXIMUM NON-REPETITIVE FOREARD SURGE CURRENT

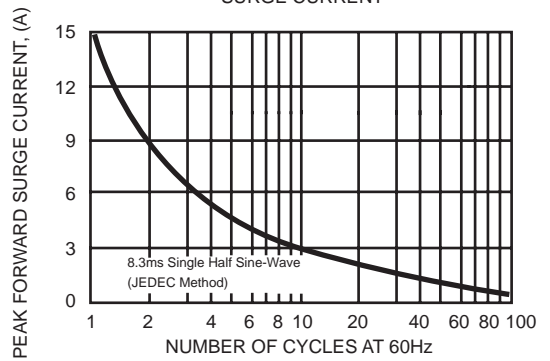


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

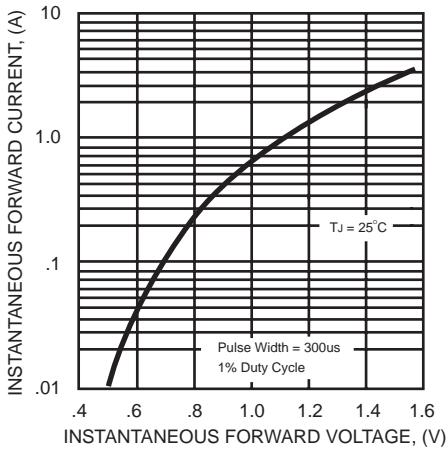
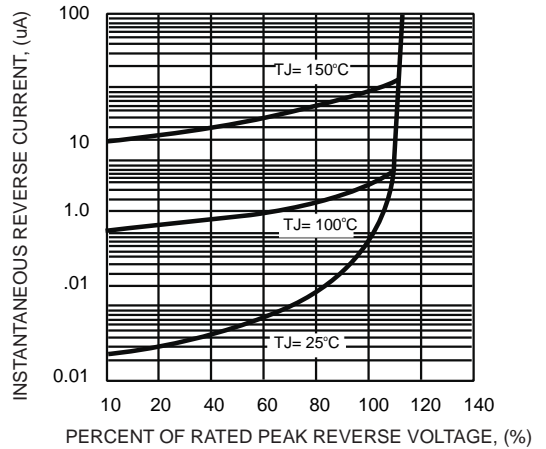


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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