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

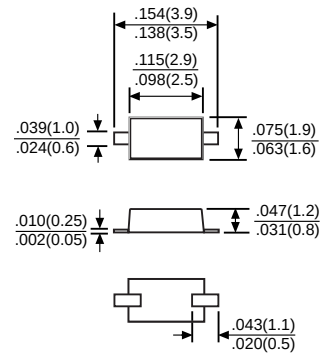
MECHANICAL DATA

* 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_{FM}(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	I_R	5.0							uAmps
	@T_A = 125°C		50							
Maximum reverse recovery time at I_F = 0.5A , I_R = 1.0A , Irr = 0.25A		t_{rr}	150				250	500		nS
Typical thermal resistance		$R_{\theta JA}$	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

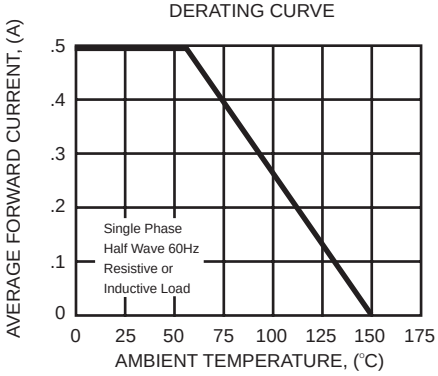


FIG. 2 - MAXIMUM NON-REPETITIVE FOREARD SURGE CURRENT

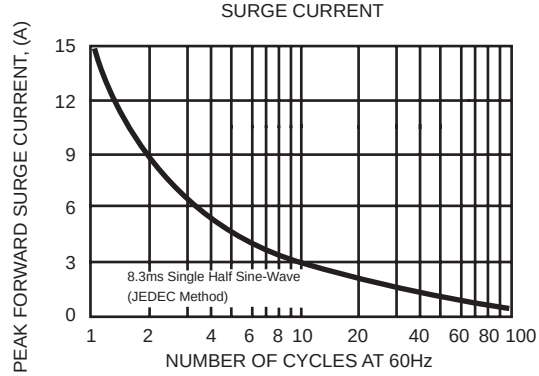


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

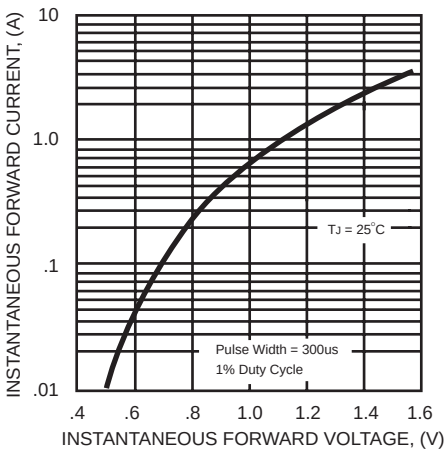


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS