FR10XW SERIES

SURFACE MOUNT FAST RECOVERY RECTIFIER

产品规格确认书

FR101W THRU FR107W

SURFACE MOUNT FAST RECOVERY RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **1.0 AMPERE**

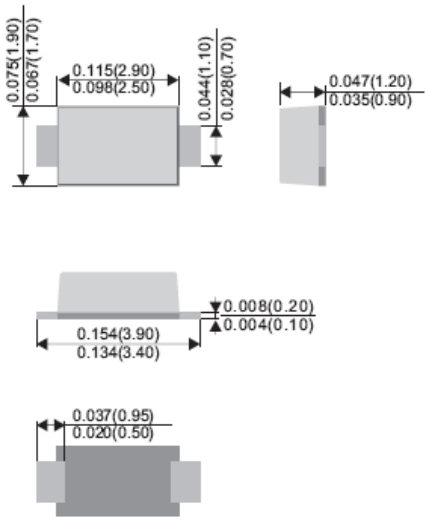
FEATURES

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O
· For surface mounted applications
· Low profile package
· Easy pick and place
· Built-in strain relief
· Fast Recovery times for high efficiency
· High temperature soldering : 250°C /10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic, SOD-123FL
Terminals: Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
Polarity: Color band denotes cathode end
Packaging: 12mm tape per EIA STD RS-481

SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	*FR101W*	*FR102W*	*FR103W*	*FR104W*	*FR105W*	*FR106W*	*FR107W*	Units
Marking Code		F1	F2	F3	F4	F5	F6	F7	
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 See Fig.1	$I_{(AV)}$	1.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							**Amp**
Maximum Forward Voltage at 1.0A	V_F	1.30							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0							**μAmp**
at Rated DC Blocking Voltage T_A=125℃		50							
Typical Junction Capacitance (Note 1)	C_J	9							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	200							**℃/W**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	150				250	500		**nS**
Operating Junction Temperature Range	T_J	-55 to +150							**℃**
Storage Temperature Range	Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.
2- Mounted on a FR4 PCB，single-sided copper，mini pad.
3- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.

FR101W THRU FR107W

SURFACE MOUNT FAST RECOVERY RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES

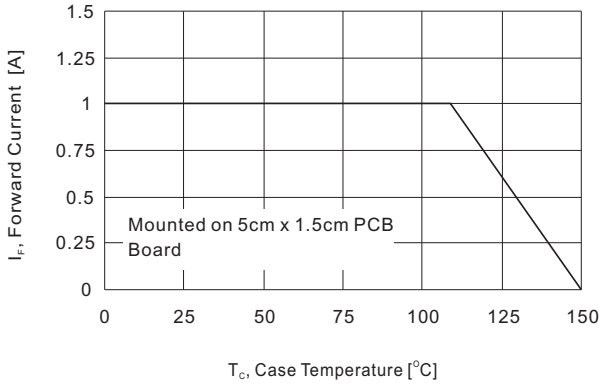


Fig.1-FORWARD CURRENT DERATING CURVE

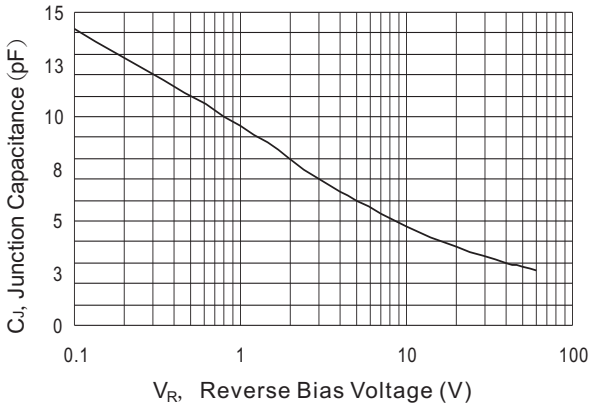


Fig.2-TYPICAL JUNCTION CAPACITANCE

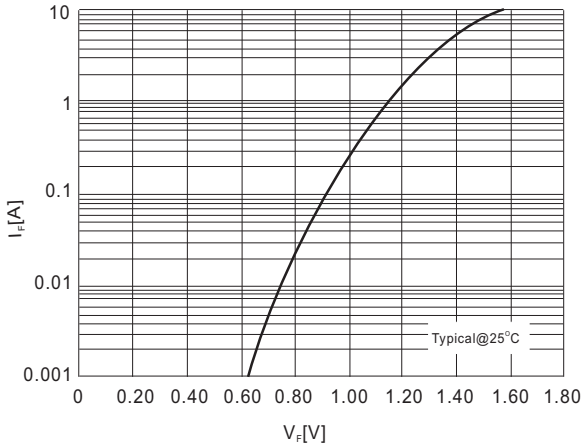


Fig.3-TYPICAL FORWARD CHARACTERISTICS

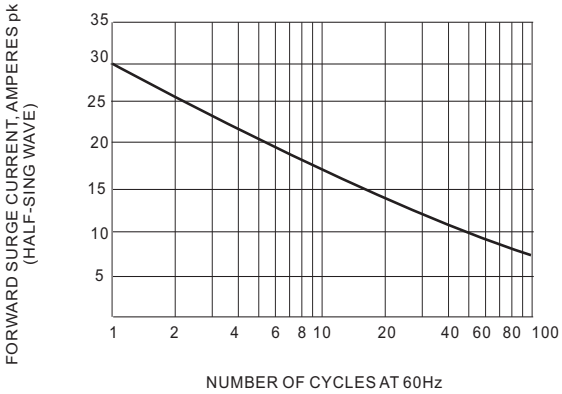


Fig.4-MAXIMUM NON-REPEITIVE SURGE CURRENT