

Low Profile SMD Ultra Fast Recovery Rectifiers

**Package: SOD-123H / MINI SMA
(Molded Plastic)**

Reverse Voltage: 50 to 1000 Volt

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

**Excellent power dissipation
offers better reverse leakage
current and thermal resistance**

**Low profile package is 40%
thinner than standard SOD-123
package**

High current capability

**Ultra fast recovery time for high
efficiency**

High surge current capability

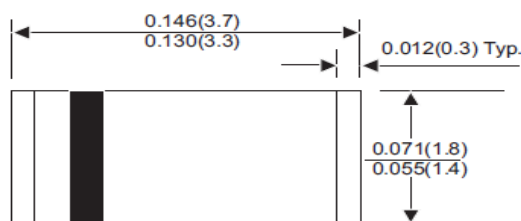
Glass passive chip junction

**Lead-free part meets RoHS
requirements**

Comchip's CURMT ultra fast recovery rectifier series utilizes the low profile flat chip SOD-123H (MINI SMA) package. The SOD-123H measures just: 1.6mm(w) x 3.5mm(l) x 0.8mm(h). The slim package design makes the CURMT series ideal for components of DC power supplies and high-voltage direct current power transmission systems. With today's market demanding smaller and thinner products, Comchip is striving to exceed market demands with quality products at a conveniently low price. With a forward current of 1 amp, reverse voltage applications range from 50 to 1000 volts.



SOD-123H



Dimensions in inches and (millimeter)

Epoxy: UL94-V0 rated flame retardant

Terminals: Solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Mounting Position: Any

Weight: 0.011 grams

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Maximum Ratings (at T_A=25°C unless otherwise noted)

Parameter	Symbol	CURMT 101-HF	CURMT 102-HF	CURMT 103-HF	CURMT 104-HF	CURMT 105-HF	CURMT 106-F	CURMT 107-HF	Unit
Max. Repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Max. Continuous reverse voltage	V _R	50	100	200	400	600	800	1000	V
Max. RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Max. Forward rectified current Ambient temperature=50°C	I _O	1.0							A
Max. Forward voltage @ I _F =1.0A	V _F	1.00			1.30	1.70			V
Max. Reverse recovery time (note 1)	T _{RR}	50				75			ns
Max. Forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25							A
Max. Reverse current	V _R =V _{RRM} T _J =25°C	I _R	5.0						μA
	V _R =V _{RRM} T _J =100°C		150						
Typ. Thermal resistance Junction to ambient air	R _{θJA}	42							°C/W
Typ. Diode Junction capacitance f=1MHz and applied 4V DC reverse voltage	C _J	70							pF
Operating junction temperature	T _J	-55 to +150							°C
Storage temperature range	T _{STG}	-65 to +175							°C

Note 1. Reverse recovery time test condition, I_F=0.5A, I_R=1.0A, I_{RR}=0.25A