

■ Features

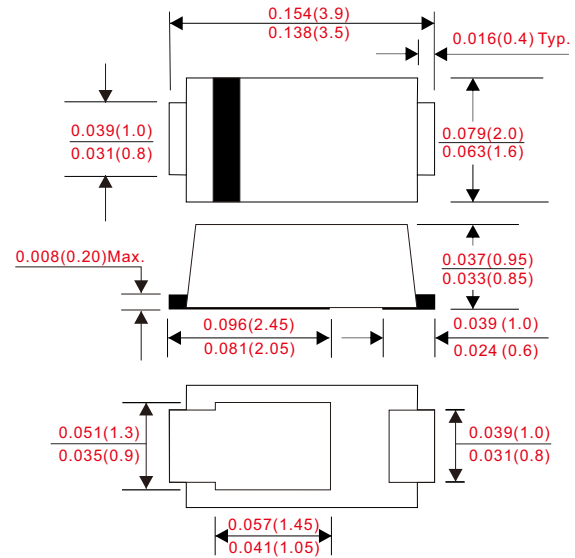
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CSS340WG-MST-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123MST
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.0155 gram

■ Outline

SOD-123MST



■ Maximum ratings and electrical characteristics

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

Parameter	Conditions	Symbol	CSS340W-MST-A	UNIT
Marking code			R34	
Peak repetitive reverse voltage		V_{RRM}	40	V
Working peak reverse voltage		V_{RWM}		
DC blocking voltage		V_{RM}		
RMS reverse voltage		$V_{R(RMS)}$	28	V
Forward rectified current		I_O	3	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	75	A
Thermal resistance	Junction to ambient(1)	$R_{\theta JA}$	175	°C/W
	Junction to ambient(2)	$R_{\theta JA}$	100	°C/W
Operating and Storage temperature		T_J, T_{STG}	-65 ~ +150	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R = 0.5mA$	$V_{(BR)R}$	40			V
Forward voltage drop	$I_F = 0.5A, T_J = 25^\circ C$	V_F		300	340	mV
	$I_F = 1A, T_J = 25^\circ C$			340	390	
	$I_F = 3A, T_J = 25^\circ C$			420	470	
Reverse current	$V_R = V_{RRM}, T_J = 25^\circ C$	I_R		0.07	0.4	mA
	$V_R = V_{RRM}, T_J = 125^\circ C$			8	40	

Note : 1.FR-4 PCB, 2oz. Copper.
2.Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.

■ Rating and characteristic curves

Fig. 1 - Forward Power Dissipation

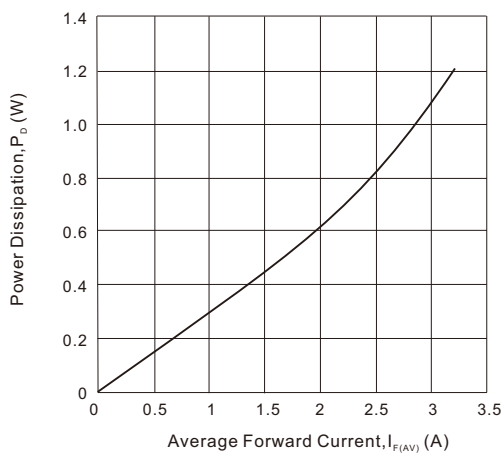


Fig. 2 - Instantaneous Forward Characteristics

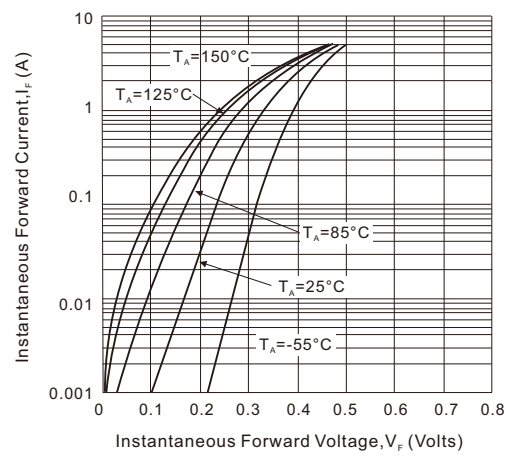


Fig. 3 - Reverse Characteristics

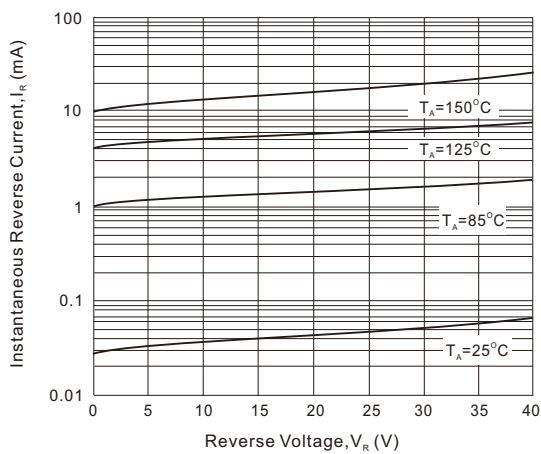
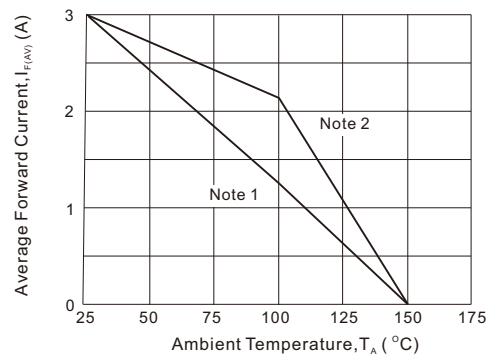
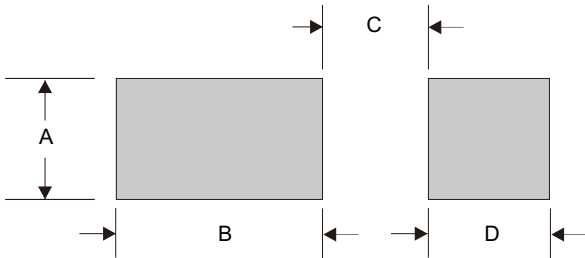


Fig.4 - Forward Current Derating Curve



■ SOD-123MST foot print



A	B	C	D
0.036 (0.90)	0.084 (2.10)	0.032 (0.80)	0.032 (0.80)

Dimensions in inches and (millimeters)

- CITC reserves the right to make changes to this document and its products and specifications at any time without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- CITC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CITC assume any liability for application assistance or customer product design.
- CITC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of CITC.
- CITC products are not authorized for use as critical components in life support devices or systems without express written approval of CITC.