

Main Product Characteristics

$I_{F(AV)}$	3A
$V_{RRM}$	40V
$T_J$	150°C
$V_{(Typ)}$	0.42V

■ 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

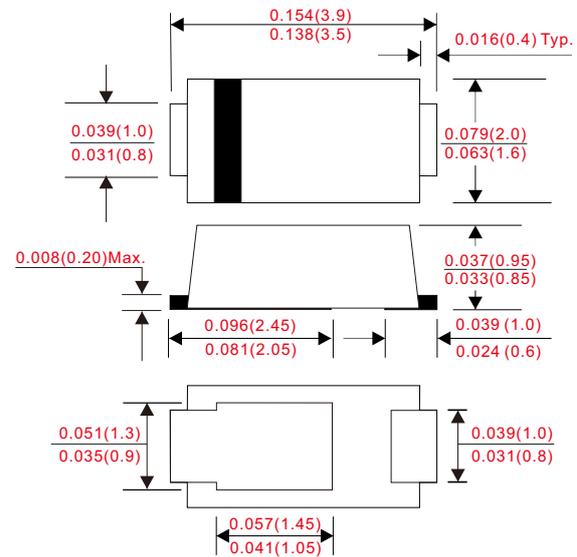
- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123MST
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.0155 gram

■ 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%.

■ Outline

SOD-123MST



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 case	$R_{BJC}$	20	°C/W
Operating and Storage temperature		$T_J, T_{STG}$	-55 ~ +150	°C

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

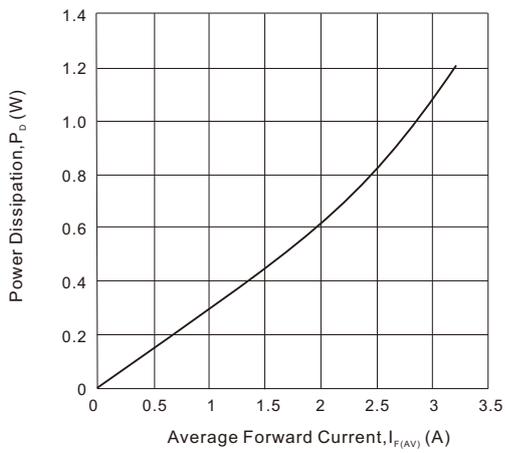


Fig. 2 - Instantaneous Forward Characteristics

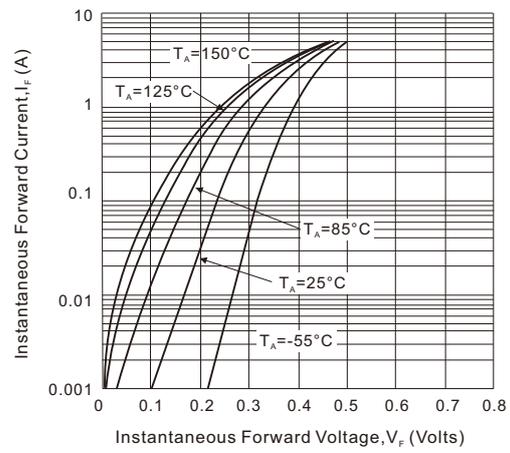


Fig. 3 - Reverse Characteristics

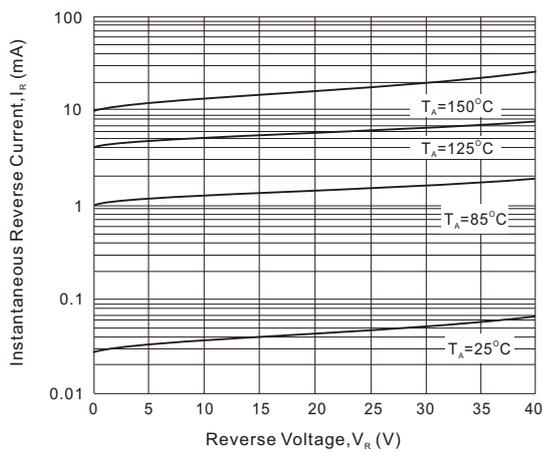
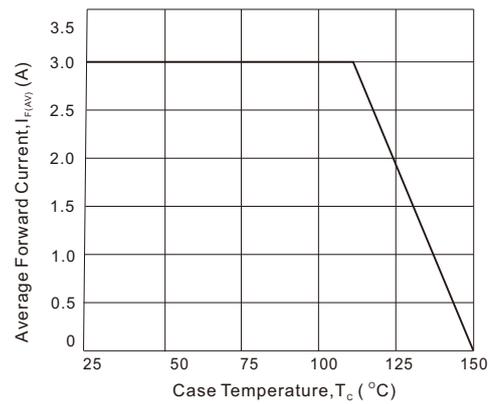
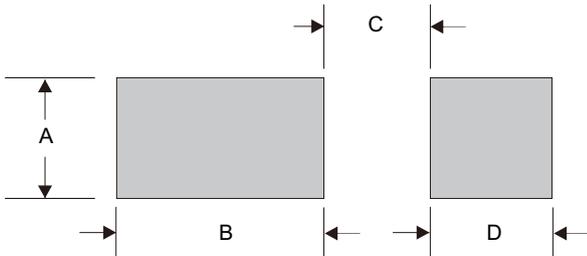


Fig. 4 - Forward Current Derating Curve



■ 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)

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