CSRS1550-A

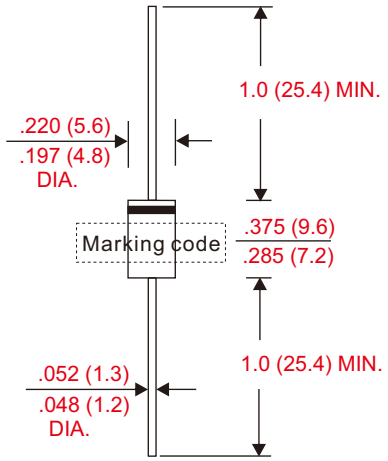
15A Lead Type Super Low Barrier Diode

■ Features

- Axial lead type devices for through hole design.
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex.CSRS1550G-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Outline

DO-27(DO-201AD)



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-201AD / DO-27
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity : Color band denotes cathode end
- Weight : Approximated 1.10 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%.

Parameter	Conditions	Symbol	CSRS1550-A	UNIT
Marking code			CSRS1550	
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage		V_{RRM} V_{RWM} V_{RM}	50	V
RMS reverse voltage		$V_{R(RMS)}$	35	V
Forward rectified current		I_O	15	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	200	A
Thermal resistance	Junction to ambient	$R_{\theta JA}$	54	°C/W
	Junction to lead	$R_{\theta JL}$	18	°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	$V_{(BR)R}$	50			V
Forward voltage drop	I_F = 15A, T_J = 25°C	V_F			470	mV
	I_F = 15A, T_J = 125°C				410	
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R			0.3	mA
	V_R = V_{RRM} T_J = 100°C				15	
	V_R = V_{RRM} T_J = 125°C			60		

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■ Rating and characteristic curves

Fig. 1 - Forward Power Dissipation

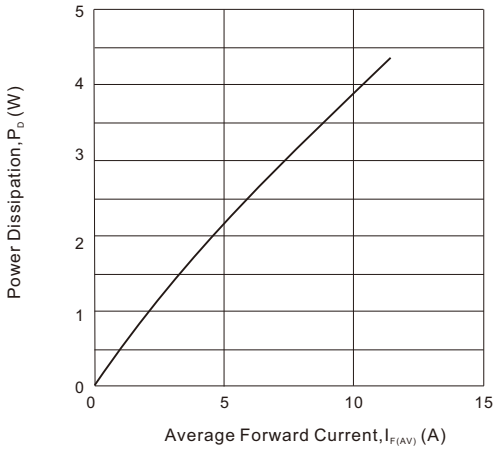


Fig. 2 - Instantaneous Forward Characteristics

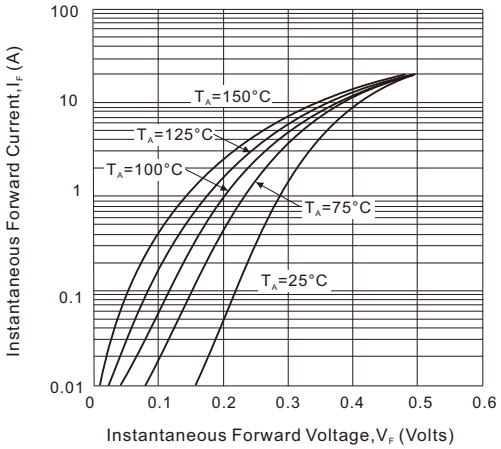


Fig. 3 - Reverse Characteristics

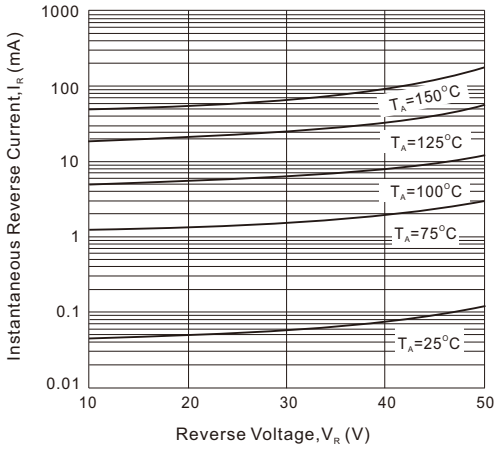


Fig.4 - Forward Current Derating Curve

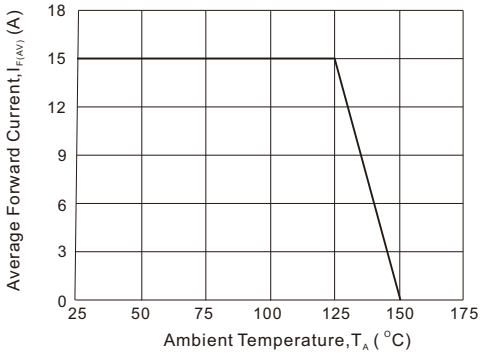


Fig. 5 - Total Capacitance VS. Reverse Voltage

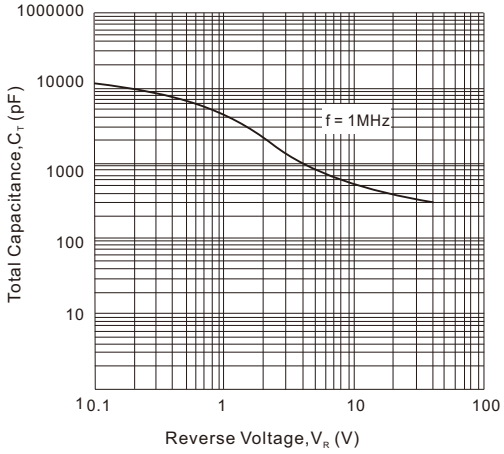
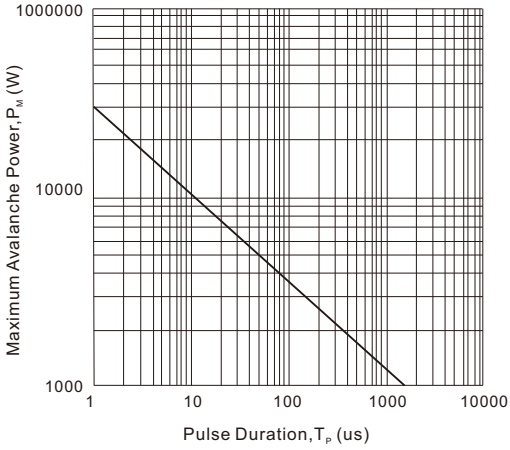


Fig. 6 - Maximum Avalanche Power Curve



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