SR120 THRU SR1200

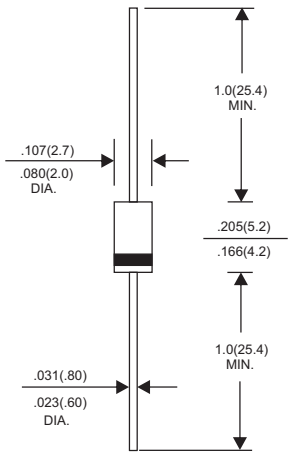
1.0A Axial Leaded Schottky Barrier Rectifiers - 20V-200V

Features

- Axial lead type devices for through hole design.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- Suffix "-H" indicates Halogen free parts, ex. SR120-H.

Package outline

DO-41



Dimensions in inches and (millimeters)

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-41
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS		Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1		I_O			1.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)		I_{FSM}			30	A
Reverse current	T_J = 25°C	V_R = 20V - 60V	I_R			0.5	mA
		V_R = 80V - 200V				0.1	
Reverse current	T_J =100 °C	V_R = 20V - 60V	I_R			10	mA
		V_R = 80V - 200V				5	
Thermal resistance	Junction to ambient (Note 1) Junction to lead (Note 1)		$R_{\theta JA}$ $R_{\theta JL}$		50 15		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage		C_J		110		pF
Storage temperature			T_{STG}	-65		+175	°C

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
SR120	20	14	20	0.55	-55 to +125
SR130	30	21	30		
SR140	40	28	40		
SR150	50	35	50	0.70	-55 to +150
SR160	60	42	60		
SR180	80	56	80	0.85	
SR1100	100	70	100		
SR1150	150	105	150	0.90	
SR1200	200	140	200	0.95	

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=1.0A

Note 1:Thermal resistance Vertical P.C.B. mounted , with 1.5 X1.5"(38X38mm)copper pads

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Rating and characteristic curves (SR120 THRU SR1200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

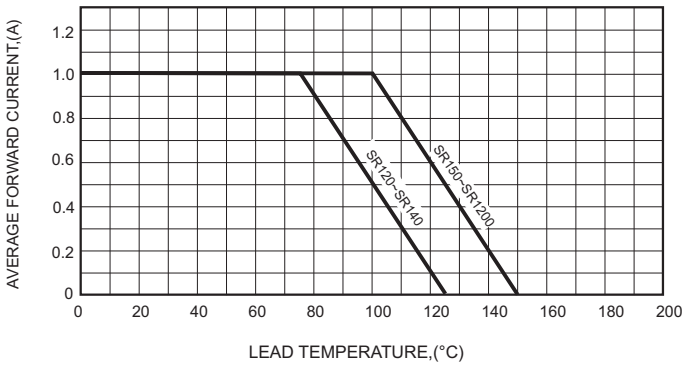


FIG.2-TYPICAL FORWARD CHARACTERISTICS

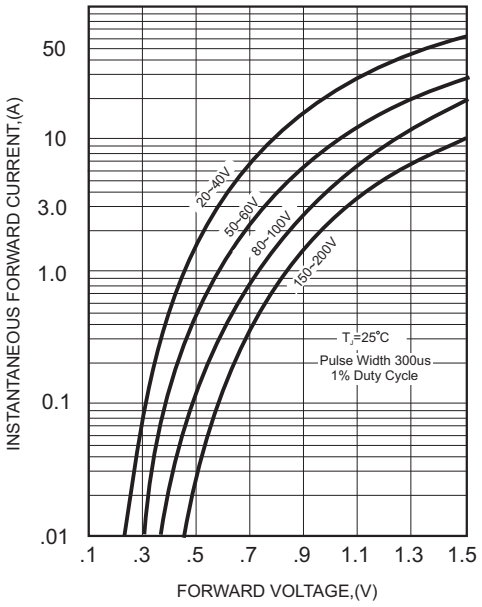


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

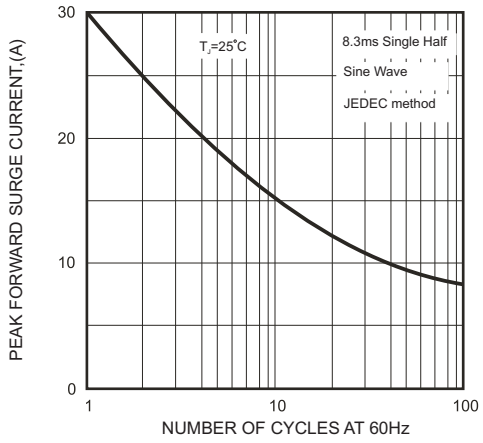


FIG.4-TYPICAL JUNCTION CAPACITANCE

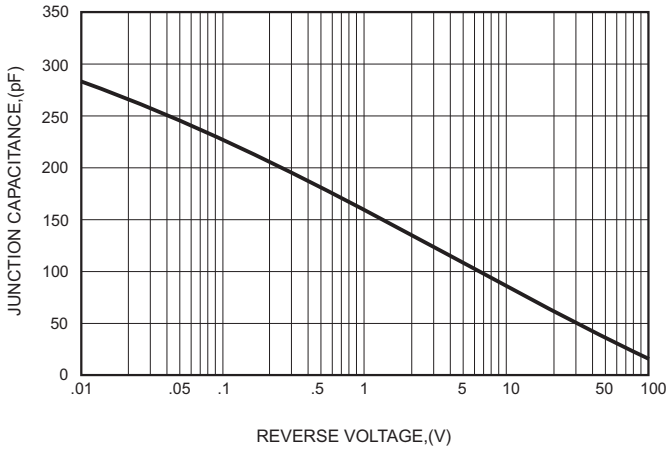
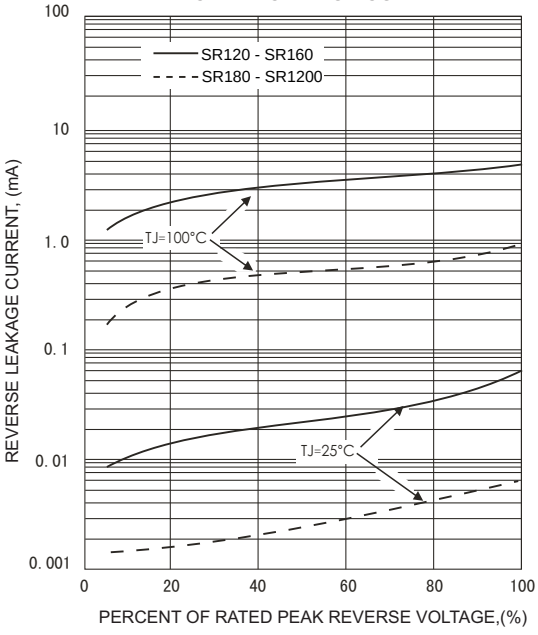


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SR120	SR120
SR130	SR130
SR140	SR140
SR150	SR150
SR160	SR160
SR180	SR180
SR1100	SR1100
SR1150	SR1150
SR1200	SR1200