

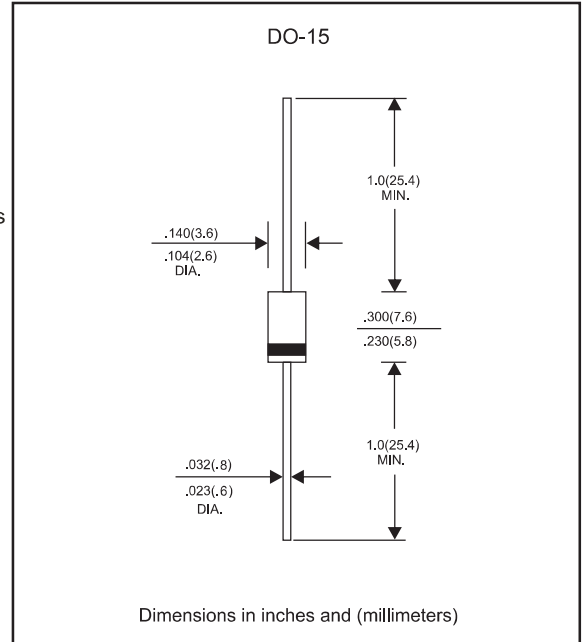
Features

- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- Suffix "-H" indicates Halogen free parts, ex. SR220-H.

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-15
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_o			2.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			50	A
Reverse current	$T_J = 25^\circ\text{C}$	I_R	$V_R = 20\text{V} - 60\text{V}$		0.5	mA
			$V_R = 80\text{V} - 200\text{V}$		0.1	
Reverse current	$T_J = 100^\circ\text{C}$	I_R	$V_R = 20\text{V} - 60\text{V}$		10	mA
			$V_R = 80\text{V} - 200\text{V}$		5	
Thermal resistance	Junction to ambient Note 1	$R_{\theta JA}$		35		$^\circ\text{C}/\text{W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		170		pF
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

Note 1: Thermal resistance from junction to lead, and/or to ambient P. C. B. mounted with 0.375" (9.5mm) lead length with 1.5 X1.5"(38X38mm)copper pads

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^\circ\text{C}$)
SR220	20	14	20	0.55	-55 to +125
SR230	30	21	30		
SR240	40	28	40		
SR250	50	35	50	0.70	-55 to +150
SR260	60	42	60		
SR280	80	56	80	0.85	
SR2100	100	70	100		
SR2150	150	105	150		
SR2200	200	140	200	0.95	

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=2.0\text{A}$

Rating and characteristic curves (SR220 THRU SR2200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

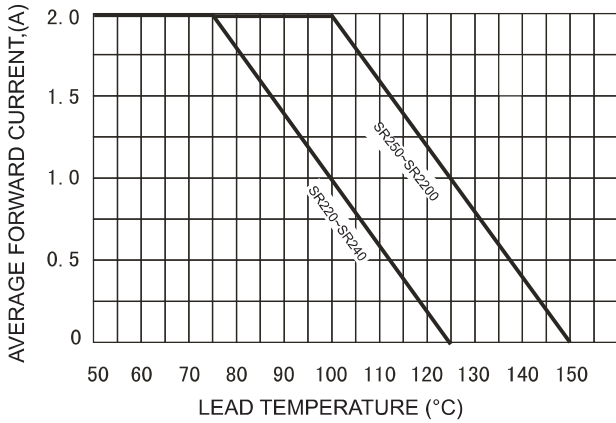


FIG.2-TYPICAL FORWARD CHARACTERISTICS

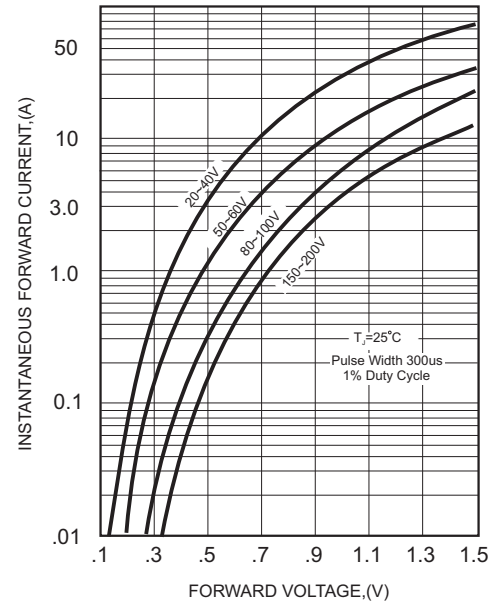


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

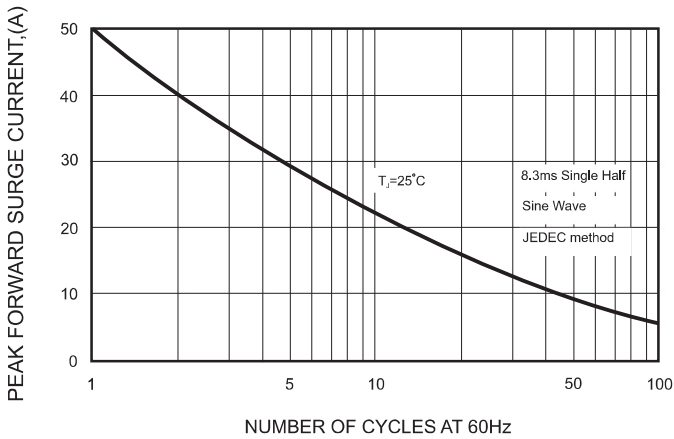


FIG.4-TYPICAL JUNCTION CAPACITANCE

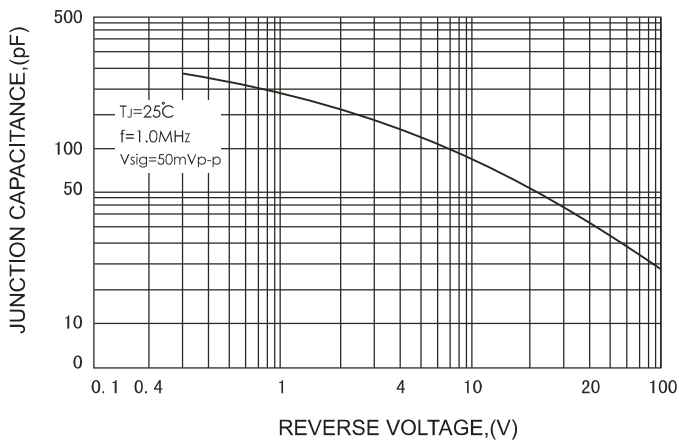
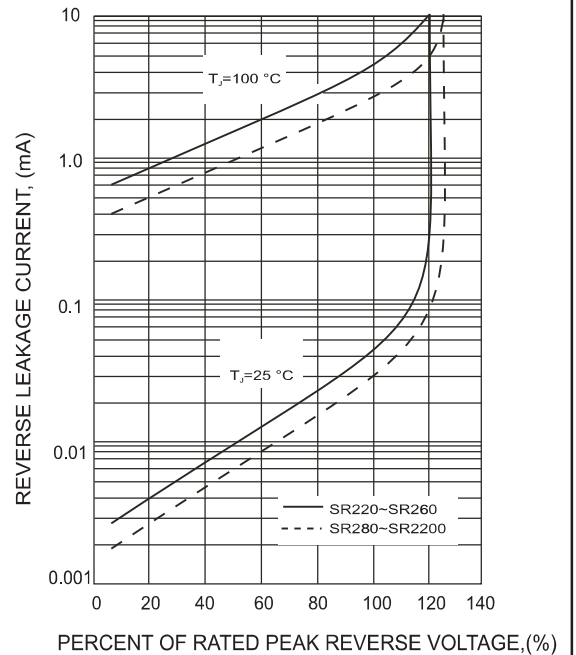




FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SR220	SR220
SR230	SR230
SR240	SR240
SR250	SR250
SR260	SR260
SR280	SR280
SR2100	SR2100
SR2150	SR2150
SR2200	SR2200