

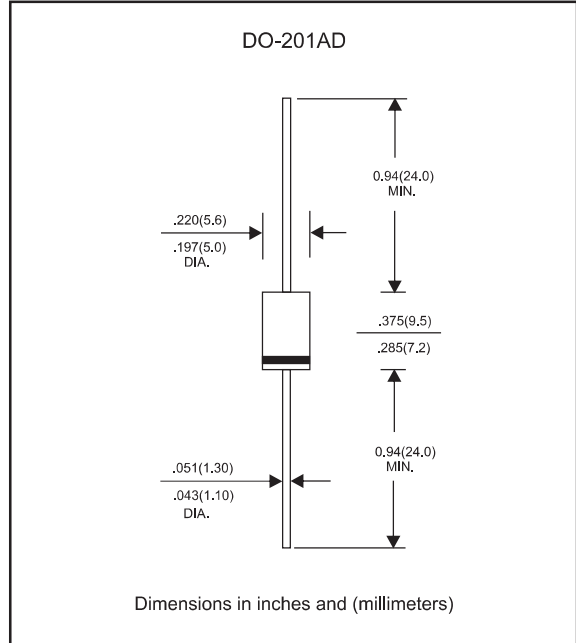
Features

- 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" for Halogen-free part, ex. SR10200-H

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-201AD
- 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			10	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			180	A
Reverse current	$T_J = 25^\circ\text{C}$	I_R			0.5	mA
					0.1	
Reverse current	$T_J = 100^\circ\text{C}$	I_R			50	mA
					5	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		25		$^\circ\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		200		pF
Storage temperature		T_{STG}	-55		+175	$^\circ\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^\circ\text{C}$) -55 to +150
SR1040	40	28	40	0.55	
SR1060	60	42	60	0.70	
SR10100	100	70	100	0.85	
SR10150	150	105	150	0.90	
SR10200	200	140	200	0.92	

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=10\text{A}$

Rating and characteristic curves

FIG. 1 - FORWARD DERATING CURVE

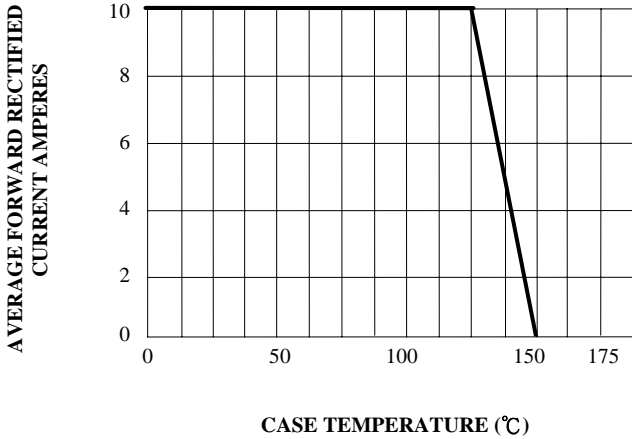


FIG. 2 - PEAK FORWARD SURGE CURRENT

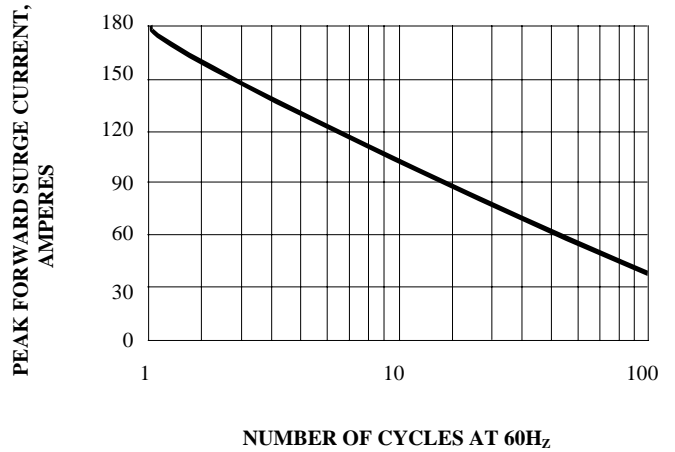


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

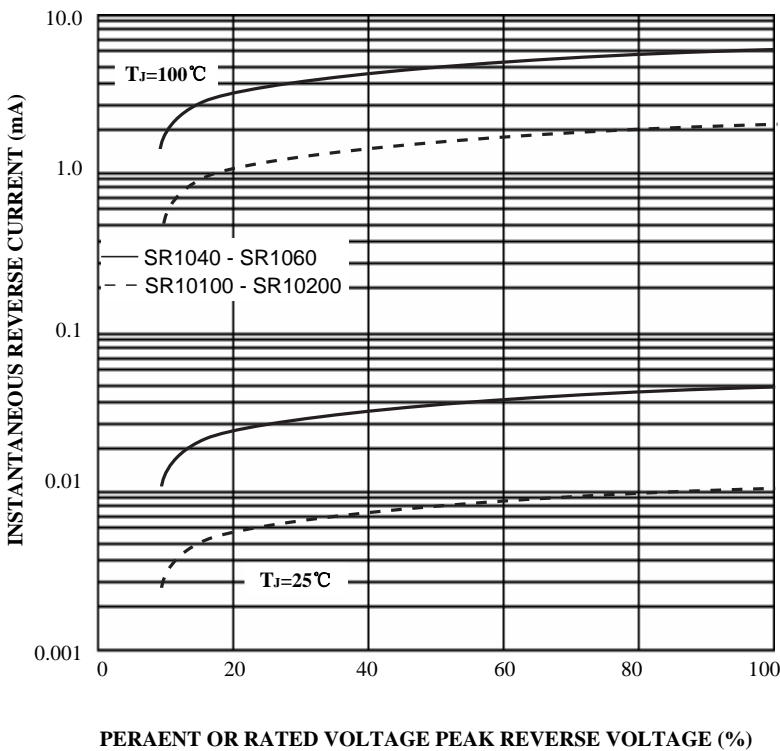
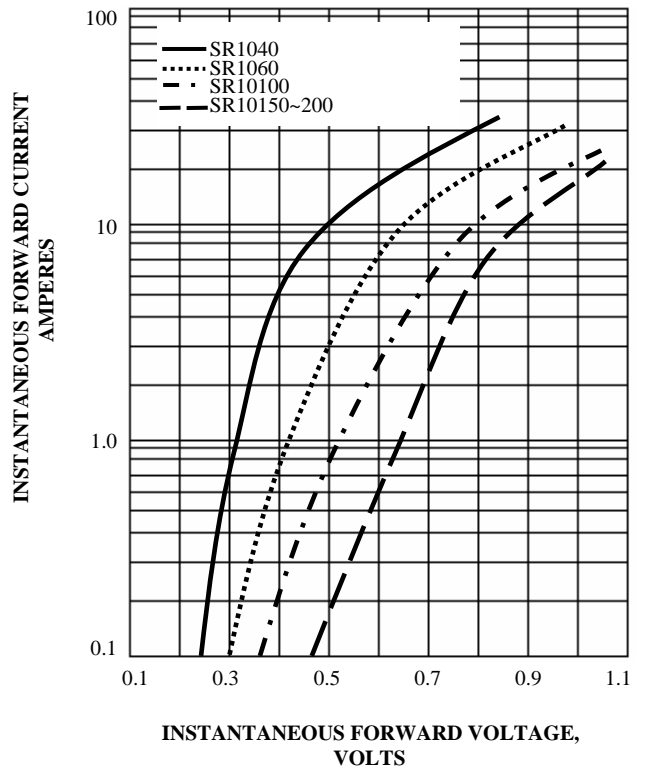




FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SR1040	SR1040
SR1060	SR1060
SR10100	SR10100
SR10150	SR10150
SR10200	SR10200