

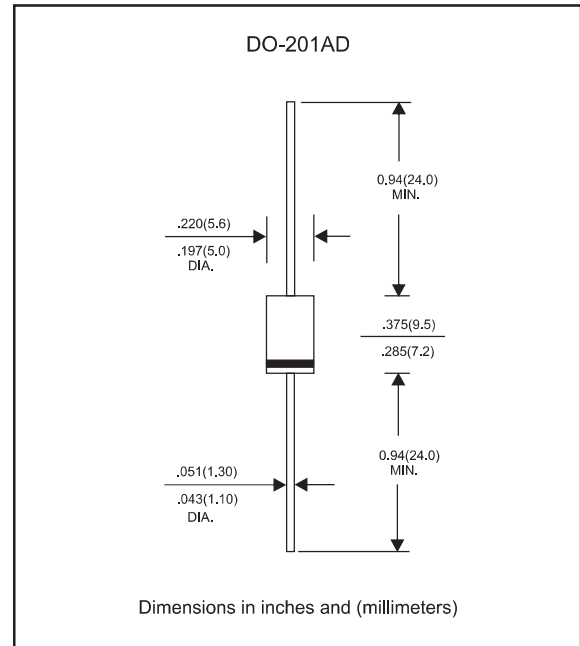
### Features

- 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.SR5L20-H

### Mechanical data

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

### 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.2	$I_o$			5.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	$I_{FSM}$			120	A
Reverse current	$V_R = V_{RRM} T_J = 25^\circ\text{C}$	$I_R$			0.5	mA
	$V_R = V_{RRM} T_J = 100^\circ\text{C}$				50	
Thermal resistance	Junction to ambient Junction to lead	$R_{\theta JA}$ $R_{\theta JL}$		25 10		$^\circ\text{C/W}$ $^\circ\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		480		pF
Storage temperature		$T_{STG}$	-65		+175	$^\circ\text{C}$

SYMBOLS	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature $T_J, (^\circ\text{C})$
SR5L04	40	28	40	0.45	-55 to +125
SR5L045	45	32	45		
SR5L05	50	35	50	0.55	-55 to +150
SR5L06	60	42	60		
SR5L08	80	56	80	0.75	
SR5L10	100	70	100		
SR5L15	150	105	150	0.85	
SR5L20	200	140	200		

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@ $I_F=5.0\text{A}$

## Rating and characteristic curves (SR5L04 THRU SR5L20)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

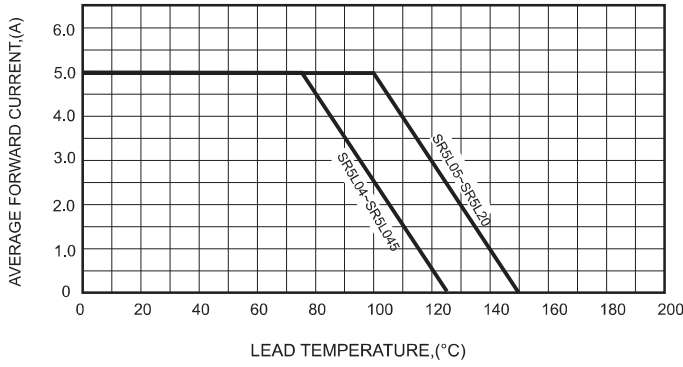


FIG.2-TYPICAL FORWARD CHARACTERISTICS

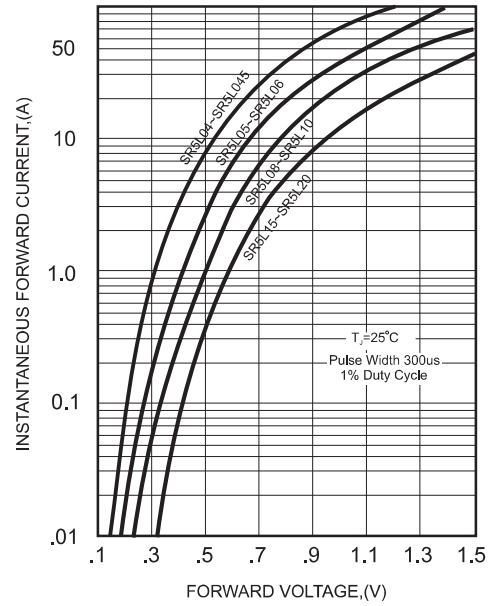


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

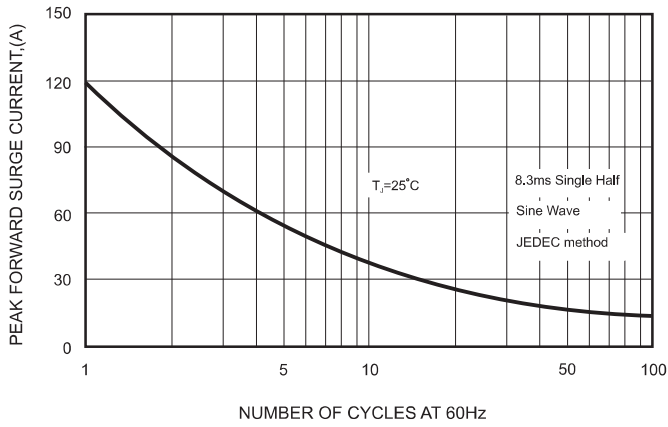


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

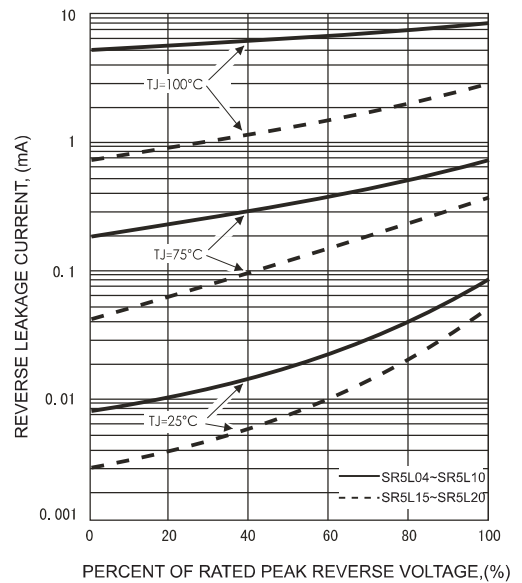
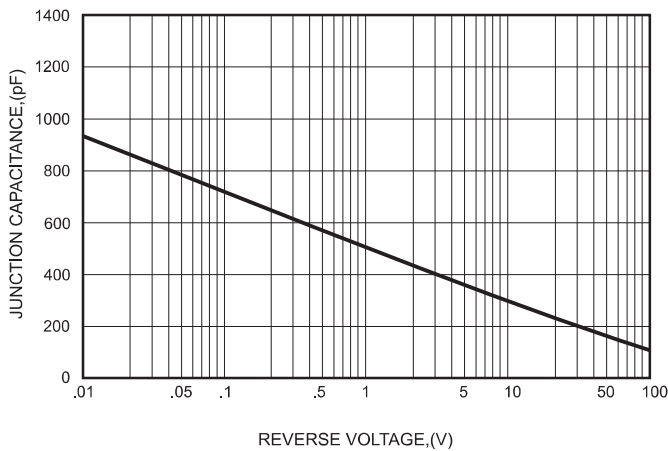






FIG.4-TYPICAL JUNCTION CAPACITANCE



### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code	Example	
SR5L04	SR5L04	For Halogen Device	For Halogen-free Device
SR5L045	SR5L045		
SR5L05	SR5L05		
SR5L06	SR5L06		
SR5L08	SR5L08		
SR5L10	SR5L10		
SR5L15	SR5L15		
SR5L20	SR5L20		