

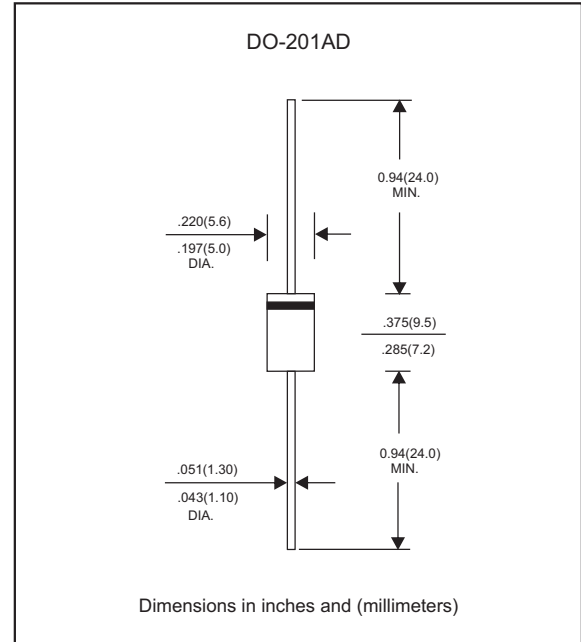
Features

- 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

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

Package outline



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.2	I _O			10.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I _{FSM}			150	A
Reverse current	V _R = V _{RRM} T _J = 25°C	I _R			0.5	mA
	V _R = V _{RRM} T _J = 100°C				10	
Thermal resistance	Junction to ambient	R _{θJA}		20		°C/W
	Junction to lead	R _{θJL}		8.0		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C _J		380		pF
Storage temperature		T _{STG}	-55		+150	°C

SYMBOLS	V _{RRM} ^{*1} (V)	V _{RMS} ^{*2} (V)	V _R ^{*3} (V)	V _F ^{*4} (V)	Operating temperature T _J , (°C)
SR1040	40	28	40	0.60	-55 to +125
SR1045	45	32	45		
SR1050	50	35	50	0.75	-55 to +150
SR1060	60	42	60		
SR1080	80	56	80	0.90	
SR10100	100	70	100		
SR10150	150	105	150	0.95	
SR10200	200	140	200		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=10.0A

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

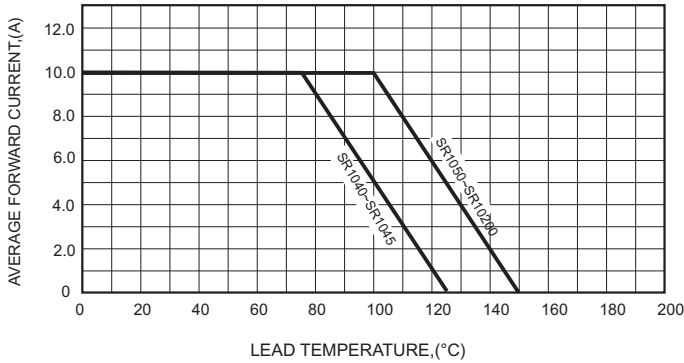


FIG.2-TYPICAL FORWARD CHARACTERISTICS

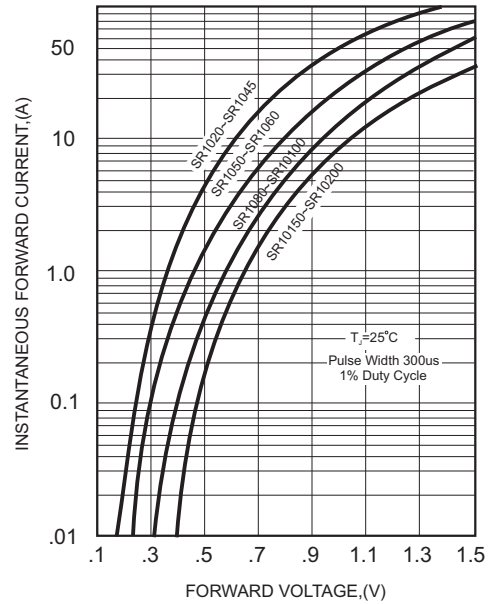


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

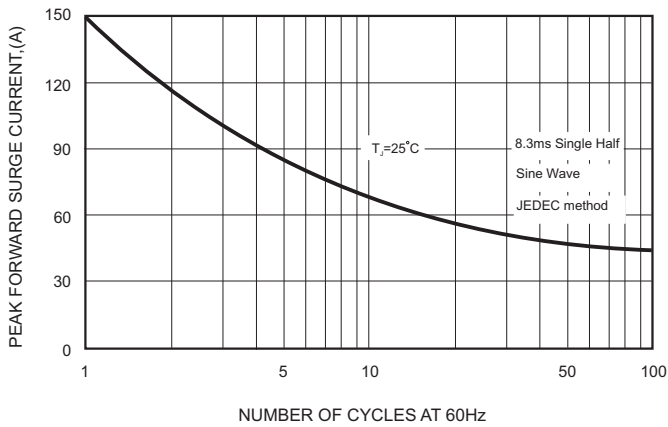


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

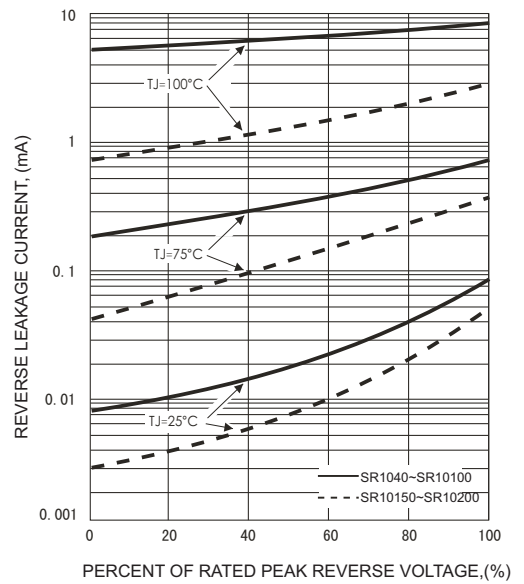
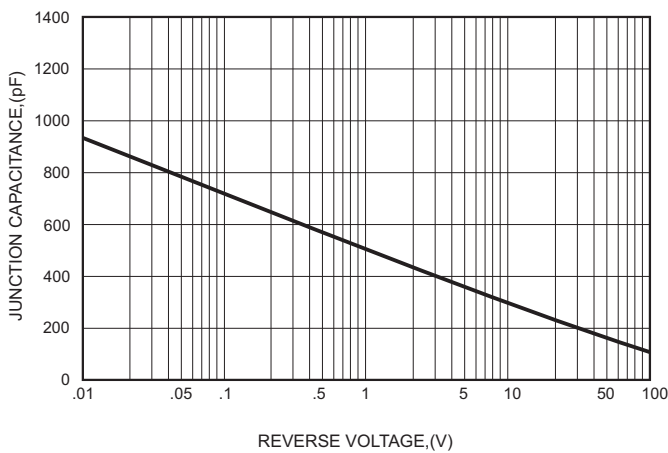




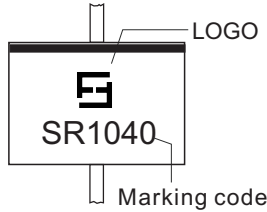
FIG.4-TYPICAL JUNCTION CAPACITANCE



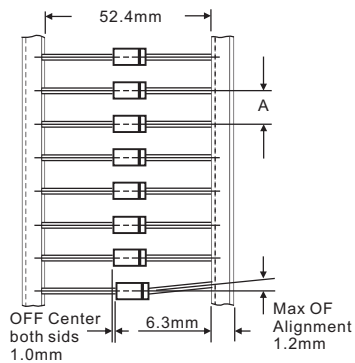
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example
SR1040	SR1040	<p>For Halogen Device</p> 
SR1045	SR1045	
SR1050	SR1050	
SR1060	SR1060	
SR1080	SR1080	
SR10100	SR10100	
SR10150	SR10150	
SR10200	SR10200	

Taping specifications for AXIAL devices



AMMO PACKING

DEVICE CASE TYPE	Q'TY 1 (PCS / BOX)	INNER BOX SIZE (m/m)	CARTON SIZE (m/m)	Q'TY 2 (PCS / CARTON)	APPROX. CROSS WEIGHT(kg)
DO-201AD	1,250	258 * 75 * 143	405 * 270 * 320	12,500	14.0

Suggested thermal profiles for soldering processes

1. Lead free temperature profile wave-soldering

