SR32-DO27 THRU SR320-DO27

Chip Integration Technology Corporation

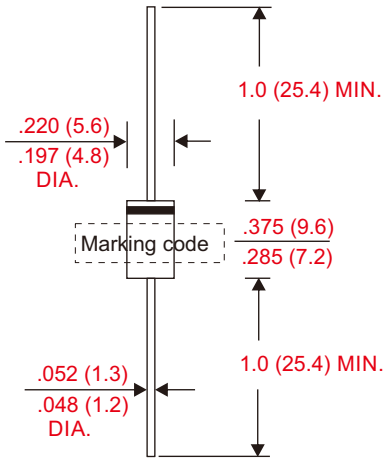
3A Leaded Type Schottky Barrier Rectifiers

■Features

- Axial lead type devices for through hole design.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex.SR32G.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■Outline

DO-27(DO-201AD)



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94V-0 rated flame retardant
- Case : Molded plastic, DO-201AD / DO-27
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity : Color band denotes cathode end
- Weight : Approximated 1.10 gram

■Maximum ratings and electrical characteristics

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			70	A
Reverse current	$V_R = V_{RRM}$ T_A= 25°C <100V	I_R			0.5	mA
	$V_R = V_{RRM}$ T_A= 25°C ≥100V				0.05	
	$V_R = V_{RRM}$ T_A= 100°C				20	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		250		pF
Thermal resistance	Junction to ambient	$R_{\theta JA}$		55		°C/W
Storage temperature		T_{STG}	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. RMS voltage V_{RMS} (V)	Max. DC blocking voltage V_R (V)	Max. forward voltage @3A, T_A= 25 °C V_F(V)	Operating Junction temperature T_J(°C)
SR32-DO27	SR32	20	14	20	0.45	-55 ~ +150
SR34-DO27	SR34	40	28	40	0.50	
SR36-DO27	SR36	60	42	60	0.70	
SR310-DO27	SR310	100	70	100	0.85	
SR315-DO27	SR315	150	105	150	0.87	-55 ~ +175
SR320-DO27	SR320	200	140	200	0.90	

■Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

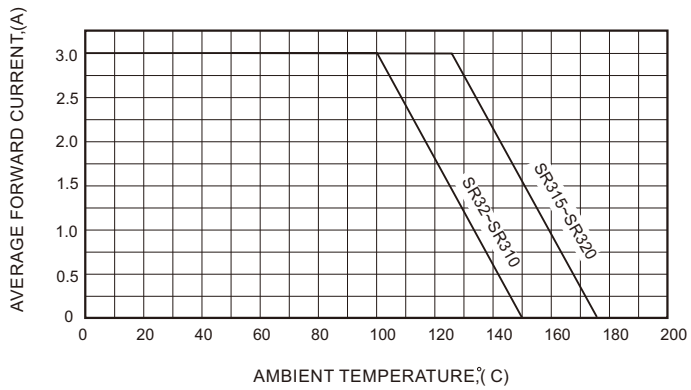


FIG.2-TYPICAL FORWARD CHARACTERISTICS

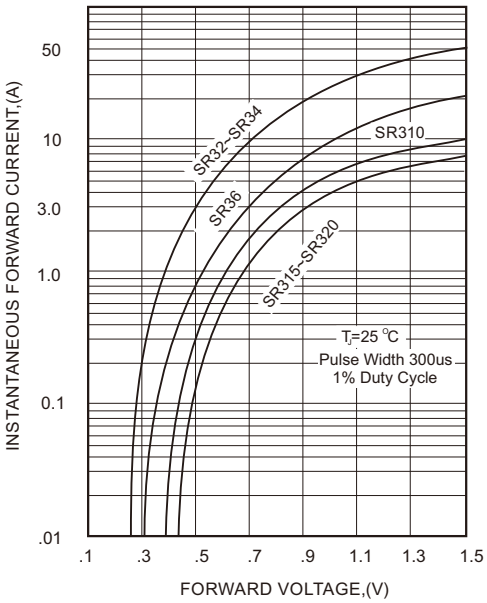


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

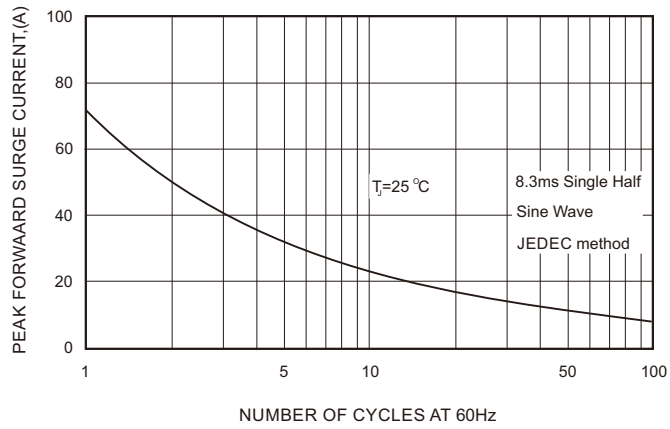


FIG.4-TYPICAL JUNCTION CAPACITANCE

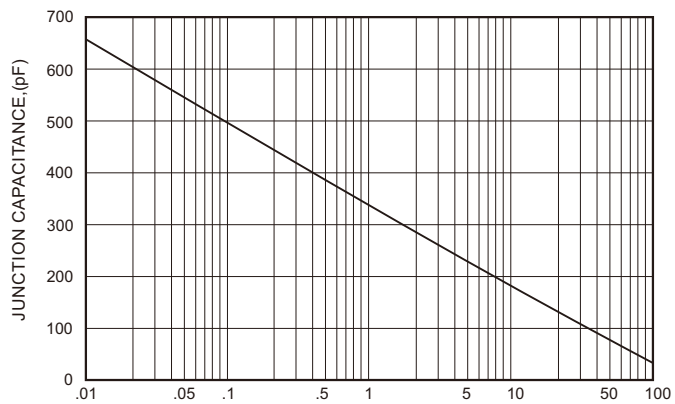
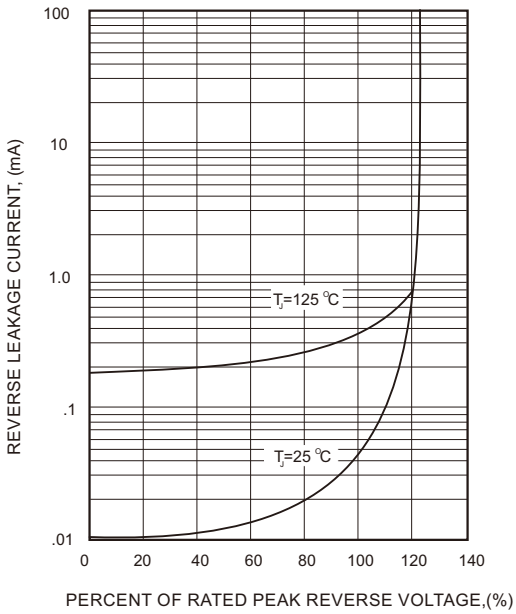


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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