



**DACO SEMICONDUCTOR CO., LTD.**

**SC2501  
THRU  
SC2507**

**AUTOMOTIVE SILICON RECTIFIERS TYPE 25A**

**Features**

- High Surge Capability
- High Current Capability
- Types up to 1000V  $V_{RRM}$
- Open junction

**Maximum Ratings**

Operating Temperature: -50 °C to +150 °C  
Storage Temperature: -50 °C to +150 °C

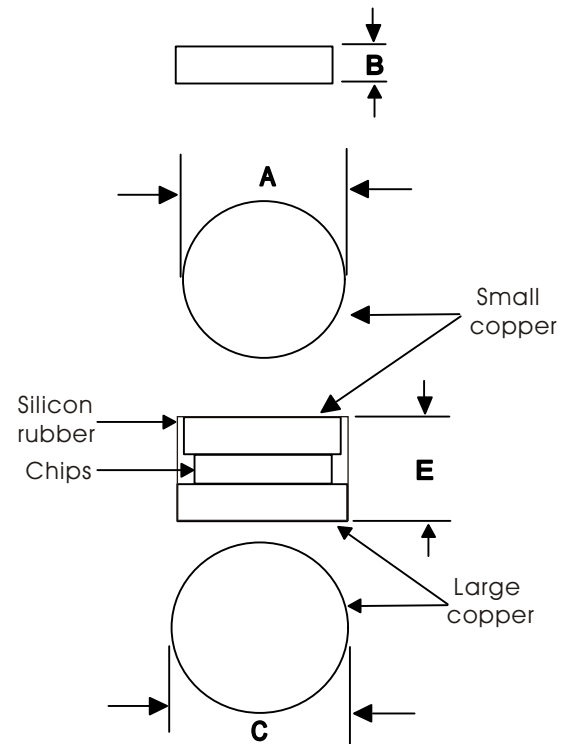
Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SC2501	50V	35V	50V
SC2502	100V	70V	100V
SC2503	200V	140V	200V
SC2504	400V	280V	400V
SC2505	600V	420V	600V
SC2506	800V	560V	800V
SC2507	1000V	700V	1000V

**Electrical Characteristics @ 25 °C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	25 A	$T_C = 100^\circ C$
Peak Forward Surge Current	$I_{FSM}$	400A	8.3ms, Halfsine
Maximum Instantaneous Forward Voltage *	$V_F$	1.0V	$I_{FM} = 25A;$ $T_J = 25^\circ C$
Maximum Instantaneous DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 uA 500 uA	$T_J = 25^\circ C$ $T_J = 150^\circ C$
Maximum thermal resistance, junction to Ambient	$R_{\theta JA}$	1.0 °C /w	
Typical Junction Capacitance	$C_j$	300pF	Measured at 1.0MHz, $V_R = 4.0V$

\*Pulse Test: Pulse Width 300 usec, Duty Cycle 2%

**25Amp  
SOZA CELL  
50-1000 Volts**



DIM	INCHES	MM	NOTE
	A	.1900	
B	.0394	1.00	
C	.2150	5.46	
D	.0295	.750	
E	.0866	2.20	



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

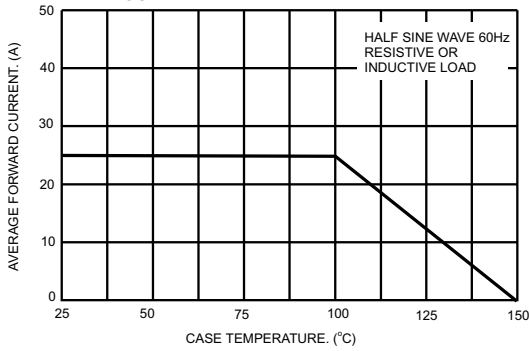


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

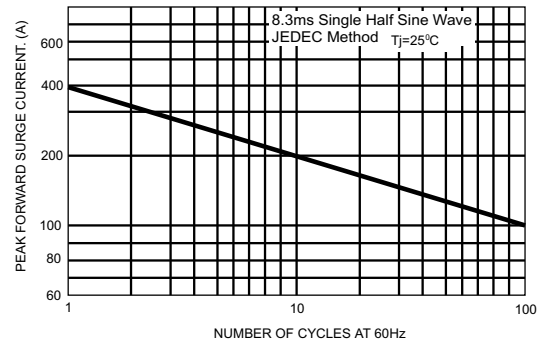


FIG.3- TYPICAL FORWARD CHARACTERISTICS

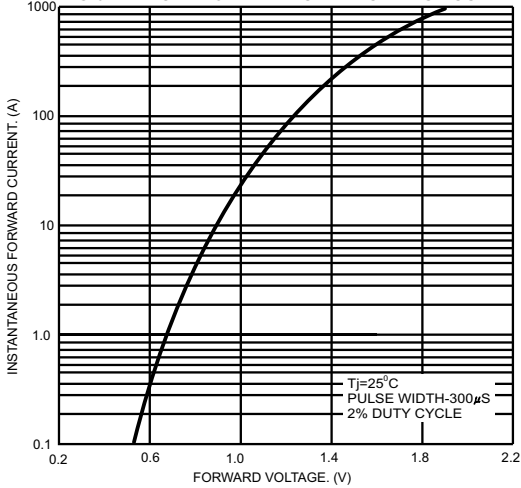


FIG.4- TYPICAL REVERSE CHARACTERISTICS

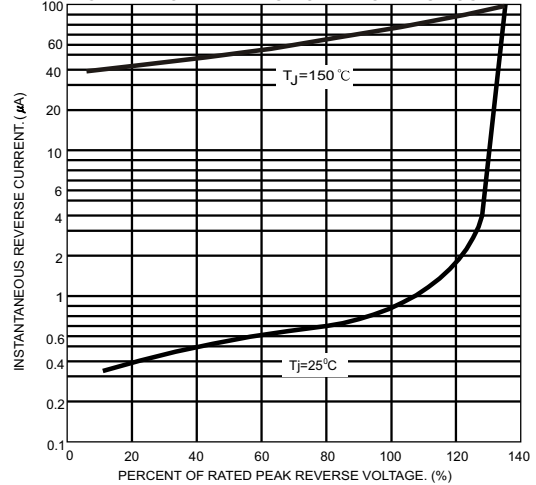


FIG.5- TYPICAL JUNCTION CAPACITANCE

