



# 500 mA SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

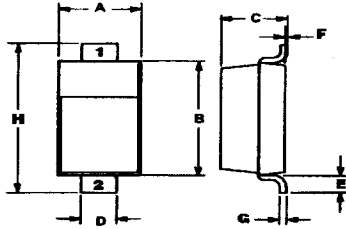
SS0520 . . . 540 Series

## Description

## Mechanical Dimensions



SOD-123



1. CATHODE 2. ANODE

DIM	IN		MM	
	MIN	MAX	MIN	MAX
A	0.055	0.071	1.40	1.80
B	0.100	0.112	2.55	2.85
C	0.037	0.053	0.95	1.35
D	0.020	0.028	0.50	0.70
E	0.004	-	0.25	-
F	.000	0.004	0.00	0.10
G	-	0.006	-	0.15
H	0.140	0.152	3.55	3.85

### Features

- EXTREMELY LOW  $V_f$
- LOW STORED CHARGE
- LOW PROFILE PACKAGE
- MAJORITY CARRIER CONDUCTION
- MEETS UL SPECIFICATION 94V-0

Electrical Characteristics @ 25°C.	SS520 . . . 540 Series			Units
	SS520	SS530	SS540	
<b>Maximum Ratings</b>				
Peak Repetitive Reverse Voltage... $V_{RRM}$	20	30	40	Volts
Working Peak Reverse Voltage... $V_{RWM}$	20	30	40	Volts
DC Blocking Voltage... $V_{DC}$	20	30	40	Volts
Average Forward Rectified Current... $I_{F(AV)}$		0.5		Amps
Peak Repetitive Forward Surge Current... $I_{FRM}$			1	Amps
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$		5.5		Amps
Forward Voltage... $V_f$				
$T_J = 25^\circ\text{C}$ ( $I_f = 0.5\text{ A}$ )	0.385	.43	0.51	Volts
$T_J = 25^\circ\text{C}$ ( $I_f = 1.0\text{ A}$ )	0.3	0.375	0.62	Volts
$T_J = 100^\circ\text{C}$ ( $I_f = 0.5\text{ A}$ )	0.330	-	0.46	Volts
$T_J = 100^\circ\text{C}$ ( $I_f = 1.0\text{ A}$ )	0.22	-	0.61	Volts
DC Reverse Current... $I_R$				
@ Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$	250	130	20	$\mu\text{amps}$
$T_J = 100^\circ\text{C}$	8	-	13	mAmps
Typical Thermal Resistance-Junction to Lead... $\theta_{JL}$	150	150	118	$^\circ\text{C/W}$
Typical Thermal Resistance-Junction to Lead... $\theta_{JA}$		206		$^\circ\text{C/W}$
Maximum Operating and Storage Temperature... $T_J, T_{stg}$	-65 to + 125			$^\circ\text{C}$
Voltage Rate of Change (Rated $V_R$ )	1000			$\text{V}/\mu\text{s}$



Fig. 1 – Derating Curve Output Rectified Current

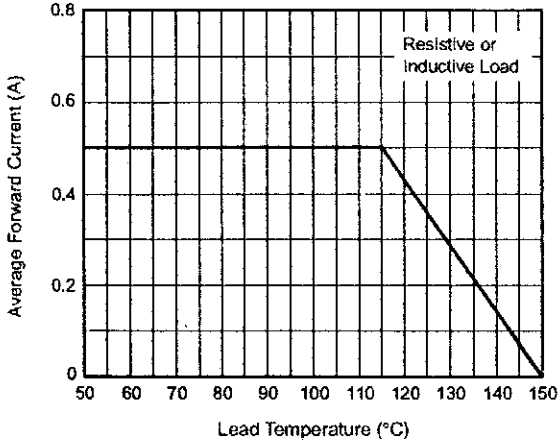


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

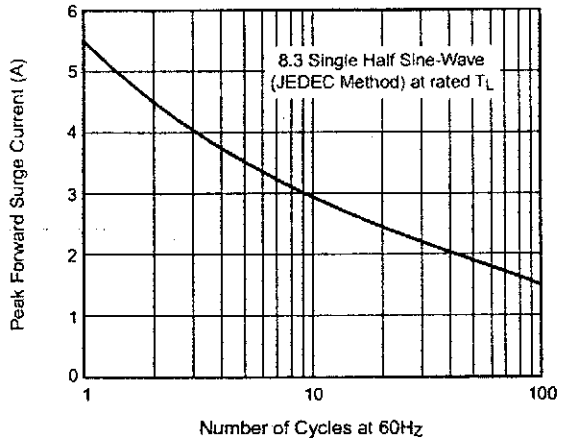


Fig. 3 – Typical Instantaneous Forward Characteristics

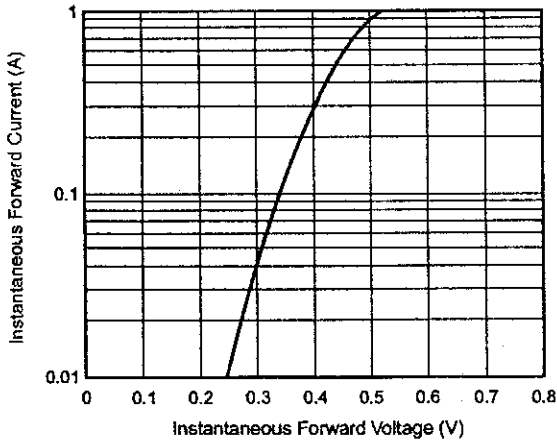


Fig. 4 – Typical Reverse Characteristics

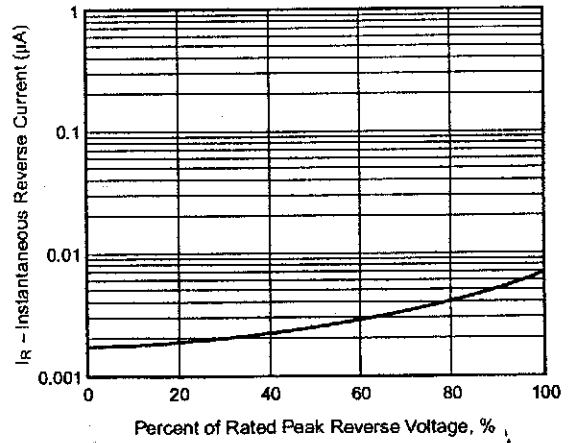


Fig. 5 – Typical Junction Capacitance

