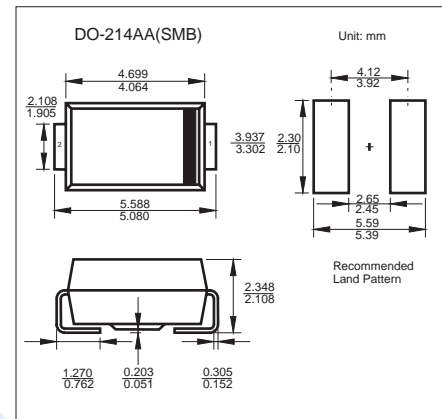


## Schottky Barrier Rectifier

## SS52 ~ SS520

## ■ Features

- Metal-Semiconductor junction with gard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



## ■ Absolute Maximum Ratings and Electrical characteristics

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

Parameter	Symbol	SS 52	SS 53	SS 54	SS 55	SS 56	SS 58	SS 510	SS 515	SS 520	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0									A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	100									
Max Instantaneous Forward Voltage at 5 A DC	$V_F$	0.55		0.7		0.85		0.95			V
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	$T_J = 25^\circ\text{C}$		0.2		1.0					mA
		$T_J = 100^\circ\text{C}$		20		50					
Typical Junction Capacitance *1	$C_j$	500		350							pF
Typical thermal resistance *2	$R_{thJA}$	60									°C/W
Junction Temperature	$T_j$	150									°C
Storage Temperature	$T_{stg}$	-55 to 150									

\* 1 Measured at 1MHz and applied reverse voltage of 4 V D.C

\* 2 Thermal resistance junction to ambient

# Schottky Barrier Rectifier

## SS52 ~ SS520

### Typical Characteristics

FIG. 1 - FORWARD CURRENT DERATING CURVE

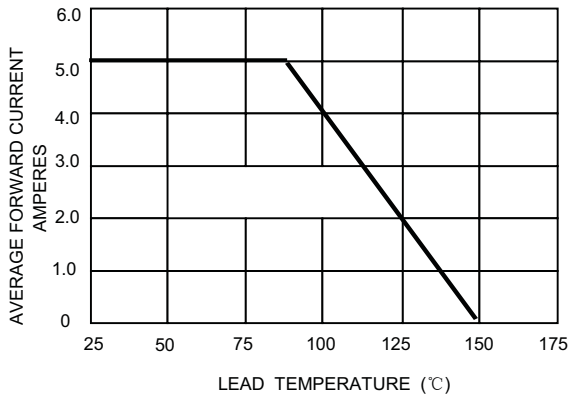


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

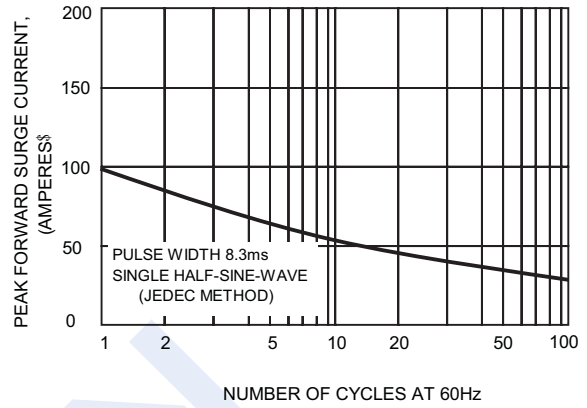


FIG.3 - TYPICAL JUNCTION CAPACITANCE

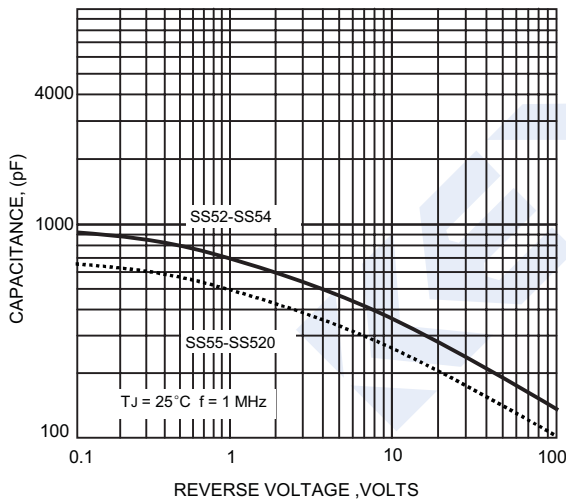


FIG.4-TYPICAL FORWARD CHARACTERISTICS

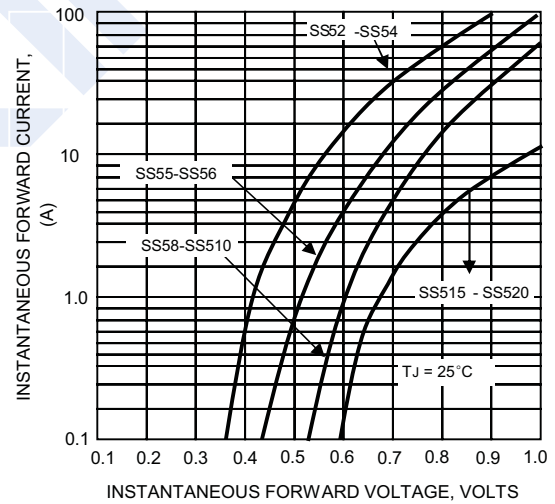


FIG.2-TYPICAL REVER CHARACTERISTICS

