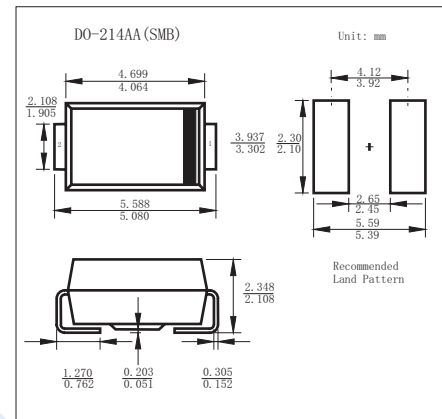


Schottky Barrier Rectifier

SS52 ~ SS520

■ Features

- Metal-Semiconductor junction with guard 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}	15		10							°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

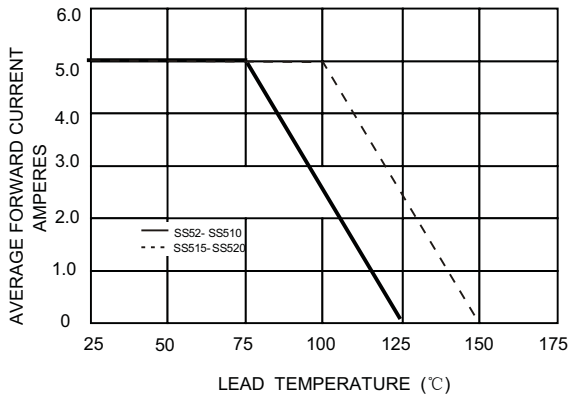


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

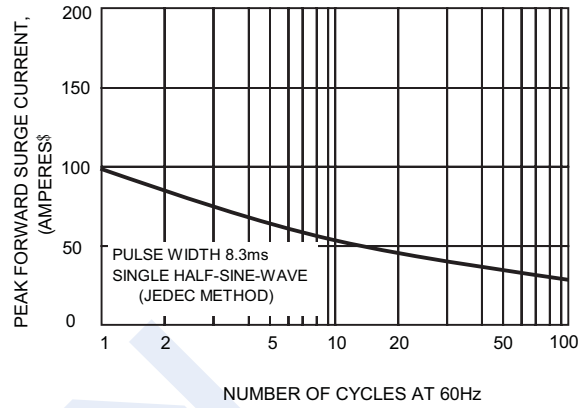


FIG.3 - TYPICAL JUNCTION CAPACITANCE

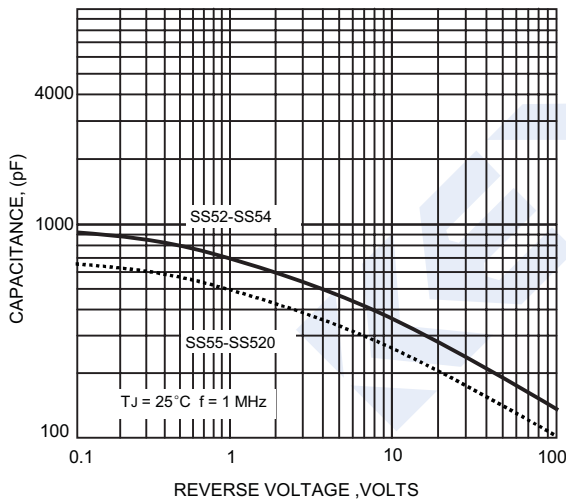


FIG.4-TYPICAL FORWARD CHARACTERISTICS

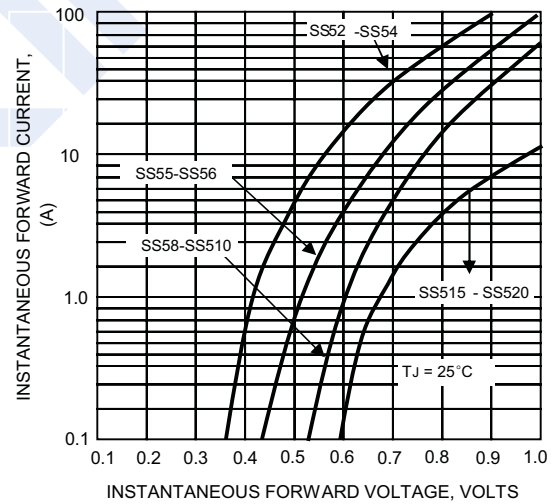


FIG.2-TYPICAL REVER CHARACTERISTICS

