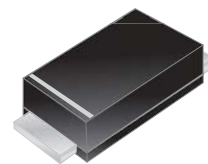
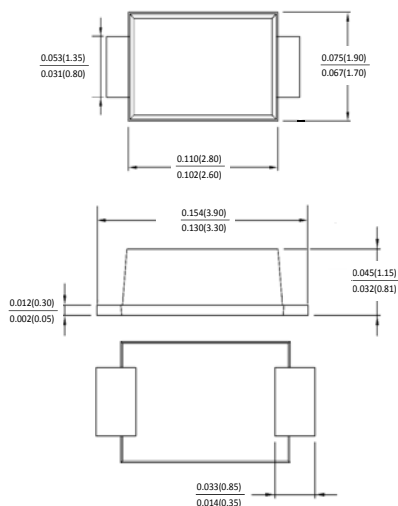




# SO520L thru SO520L



## Schottky Barrier Rectifiers



### SOD-123F

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
S05XXL	General
S05XXL-H	Halogen Free
S05XXL-Q	Automotive

PRIMARY CHARACTERISTICS	
$I_F$	0.5A
$V_{RRM}$	20~200V
$I_{FSM}$	5.5A
$V_F$	0.52, 0.66, 0.83, 0.87, 0.90V
$T_J$ max	125, 150°C

#### Features

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- Low Forward Voltage
- RoHS Compliant Product
- AEC-Q101 qualified

#### Mechanical Date

- Case: SOD-123F
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.015 grams (approximate)

#### MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	SO5 20L	SO5 30L	SO5 40L	SO5 60L	SO5 80L	SO51 00L	SO5 150L	SO52 00L	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	60	80	100	150	200	V
Working Peak Reverse Voltage	$V_{RMS}$	14	21	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	60	80	100	150	200	V
Average Forward Current @TA=25°C	$I_F$	0.5								A
Peak Forward Current @ 8.3 ms Half Sine	$I_{FSM}$	5.5								A
Maximum Instantaneous Forward Voltage TA=25°C	$V_F$	0.52			0.66	0.83		0.87	0.90	V
Maximum DC Reverse Current TJ=25°C	$I_R$	0.5						0.2		mA
Typical Junction Capacitance(Note 1)	$C_j$	100			70	50		30		pF
Typical Thermal Resistance (Note 2)	$R_{\theta Ja}$	100								°C/W
MARKING CODE		B2	B3	B4	B6	B8	BA	BB	BC	
Operating Temperature Range	$T_J$	-50 ~ 125						-50 ~ 150		°C
Storage Temperature Range	$T_{STG}$	-50 ~ 150								°C

#### NOTES:

1. Measured at 1MHZ and applied reverse of 4V DC.
2. Device mounted on FR-4 substrate, 1"\*1", 2oz, single-sided, PC boards with 0.1"\*0.15" copper pad.

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

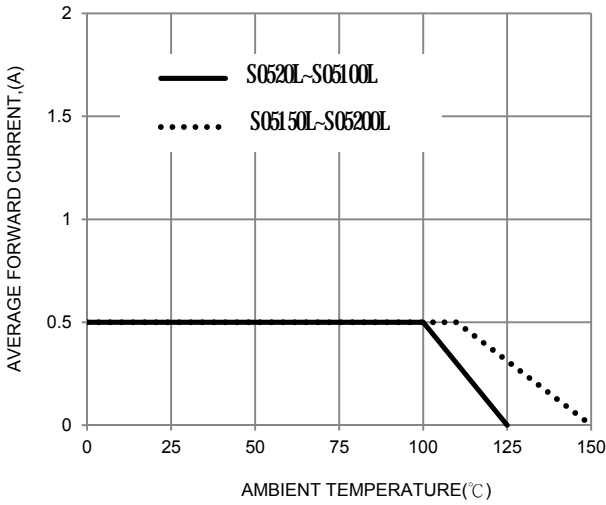


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

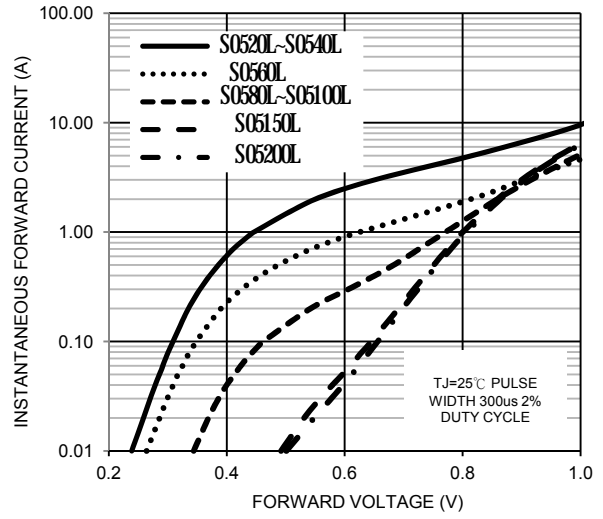


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

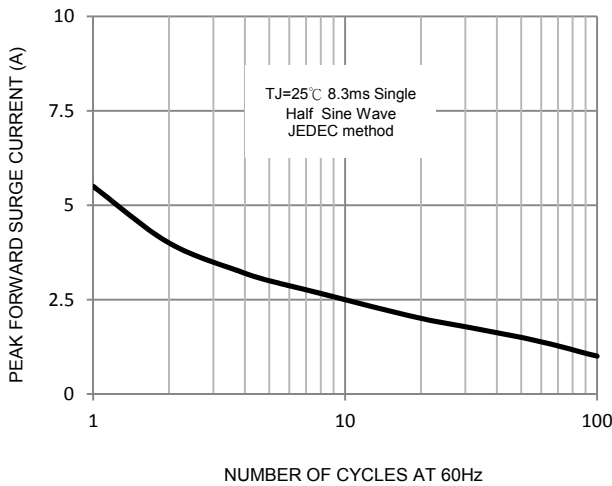


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

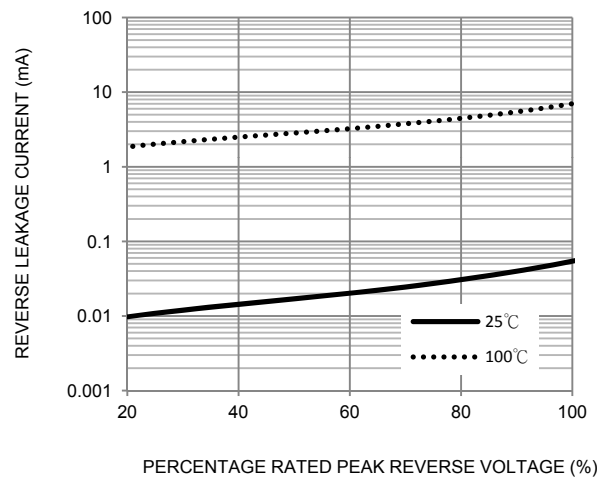


FIG. 5-TYPICAL JUNCTION CAPACITANCE

