



# THE DATASHEET OF SK520TR



## SK520 SCHOTTKY RECTIFIER

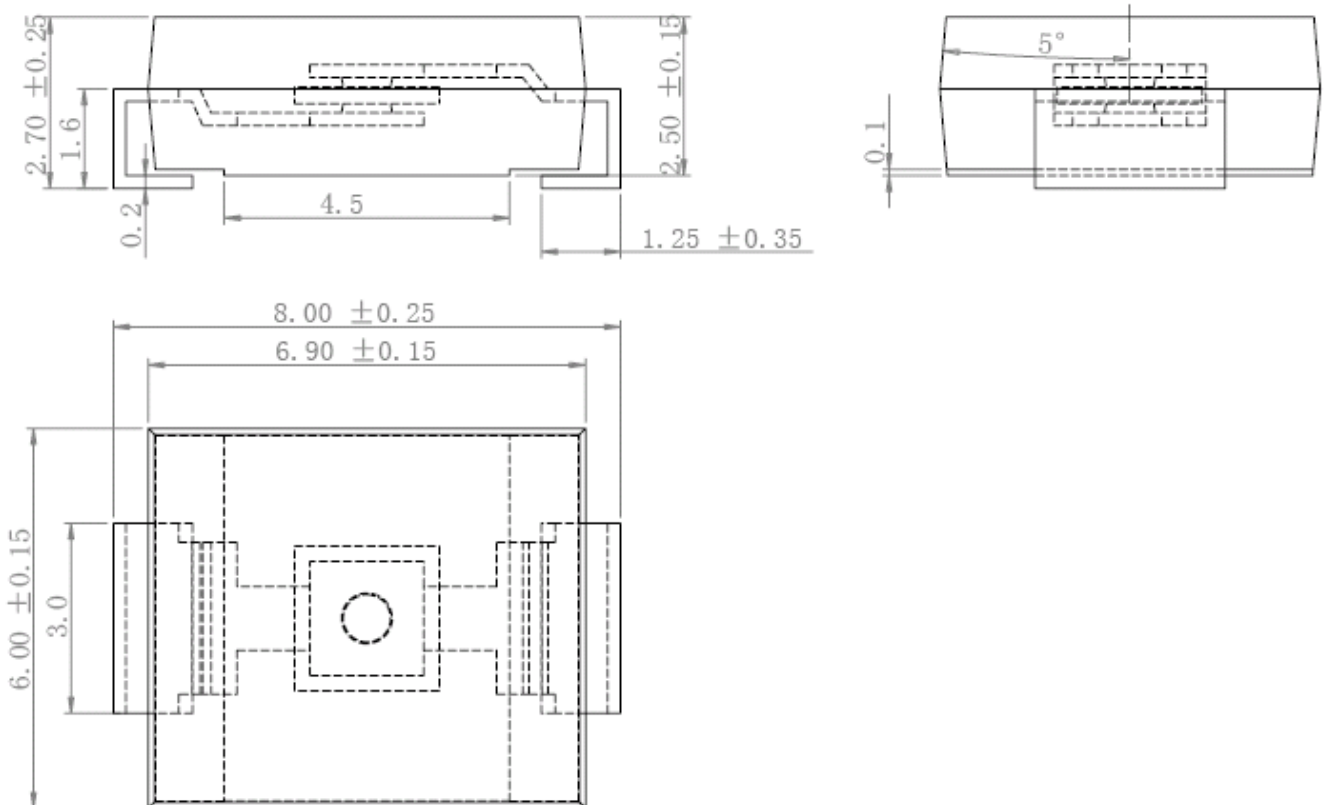
### Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### Features:

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

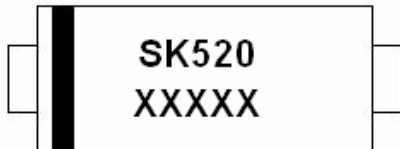
### Mechanical Dimensions (In mm / Inches):



**SMC**



**Marking Diagram:**



Where XXXXX is YYWWL

SK520 = Part Name  
YY = Year  
WW = Week  
L = Lot Number

**Cautions :** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information**

Device	Package	Shipping
SK520	SMC (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.



**Maximum Ratings and Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	SK520	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	200	V
Maximum RMS Voltage	$V_{RMS}$	140	V
Average Rectified Output Current (Note 1) @ $T_A = 105^{\circ}\text{C}$	$I_{F(AV)}$	5.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120	A
Forward Voltage @ $I_F = 5.0\text{A}, T_A = 25^{\circ}\text{C}$ @ $I_F = 5.0\text{A}, T_A = 125^{\circ}\text{C}$	$V_{FM}$	1.10 0.90	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^{\circ}\text{C}$ @ $T_A = 125^{\circ}\text{C}$	$I_{RM}$	1 7	mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	10	$^{\circ}\text{C}/\text{W}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$
Max. Junction Temperature	$T_J$	-55 to +150	$^{\circ}\text{C}$
Approximate Weight	wt	0.65	g
Case Style	SMC		

Note:1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

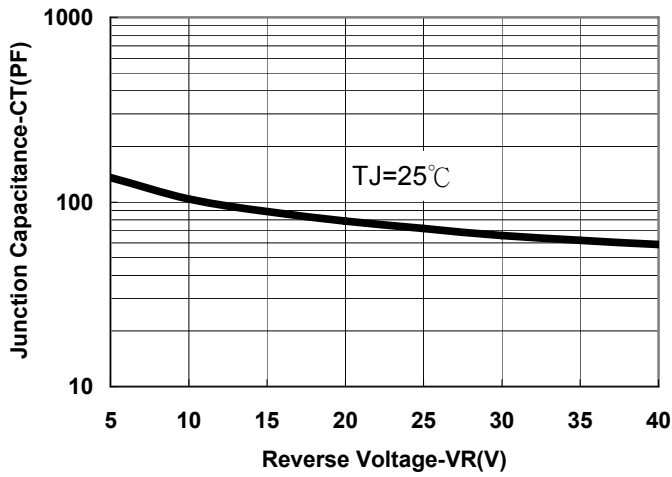


Fig.1-Typical Junction Capacitance Vs.Reverse Voltage

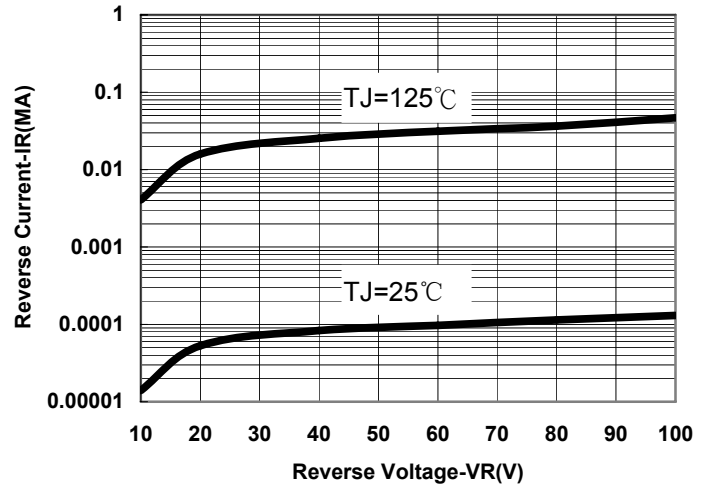


Fig.2-Typical Values Of Reverse Current Vs.Reverse Voltage

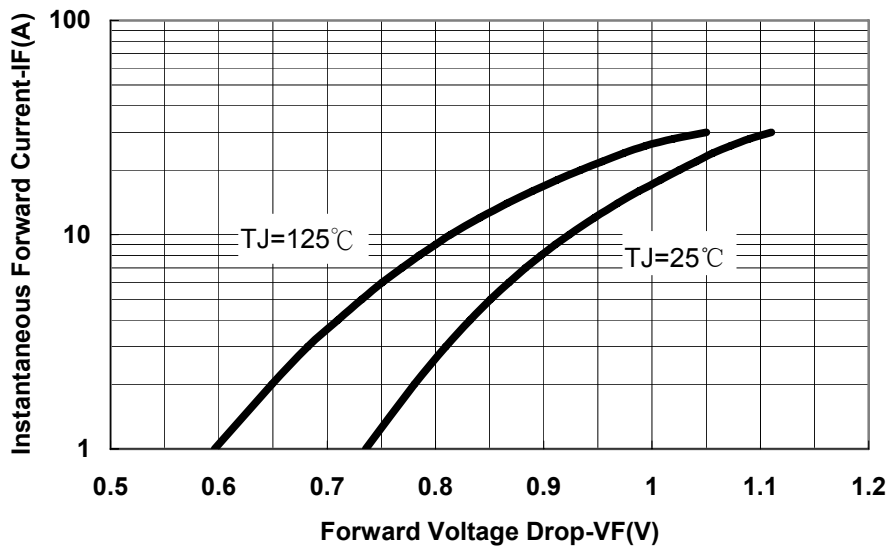


Fig.3-Typical Forward Voltage Drop Characteristics



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