

SK515 SCHOTTKY RECTIFIER

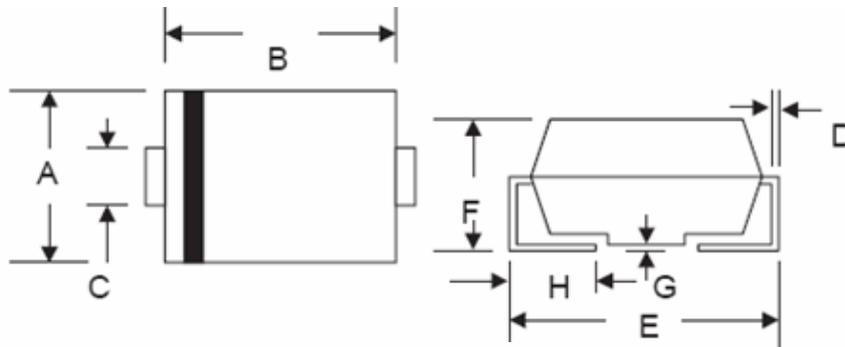
Applications:

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

Features:

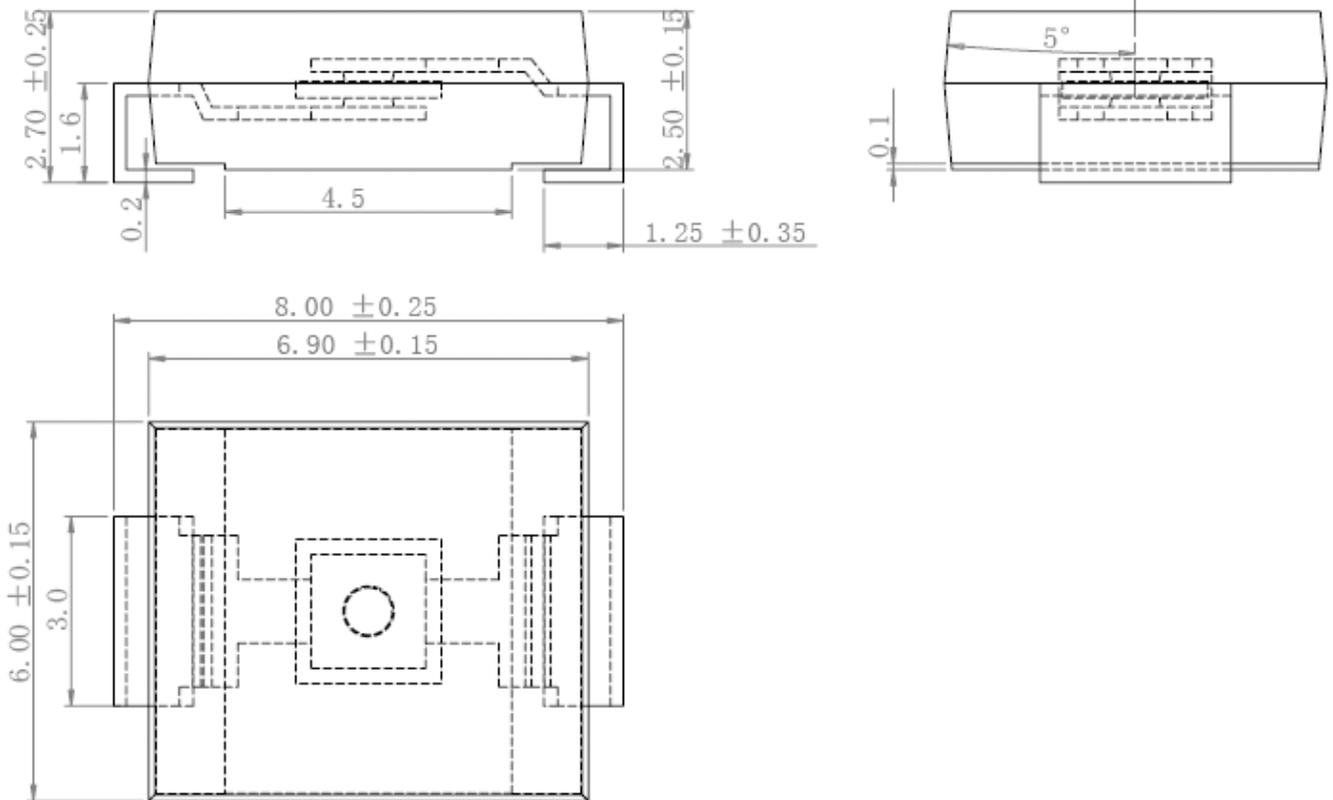
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb – Free Device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

Mechanical Dimensions: In Inches / mm



SMC/DO-214AB				
Dim	Min	Max	Min	Max
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.75	3.25	0.108	0.128
D	0.152	0.305	0.006	0.012
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.030	0.05
	In mm		In inch	

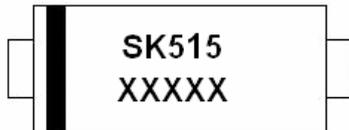
OPTION 1



OPTION 2(JK)
SMC



Marking Diagram:



Where XXXXX is YYWWL

SK515 = Part Name
YY = Year
WW = Week
L = Lot Number

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

Ordering Information

Device	Package	Shipping
SK515	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:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	150	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_C=105^\circ\text{C}$, rectangular wave form	5	A
Max. peak one cycle Non-repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	120	A



Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 5A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.93	V
	V_{F2}	@ 5 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.8	V
Max. Reverse Current	I_{R1}	@ $V_R = \text{rated VR}$ $T_J = 25\text{ }^\circ\text{C}$	1.0	mA
	I_{R2}	@ $V_R = \text{rated VR}$ $T_J = 125\text{ }^\circ\text{C}$	7	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	200	pF
Max.Voltage Rate of Change	dv/dt	-	10,000	V/us

* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Lead	$R_{\theta JL}$	-	12	$^\circ\text{C/W}$
Maximum Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	-	111	$^\circ\text{C/W}$
Approximate Weight	wt	-	0.65	g
Case Style	SMC			

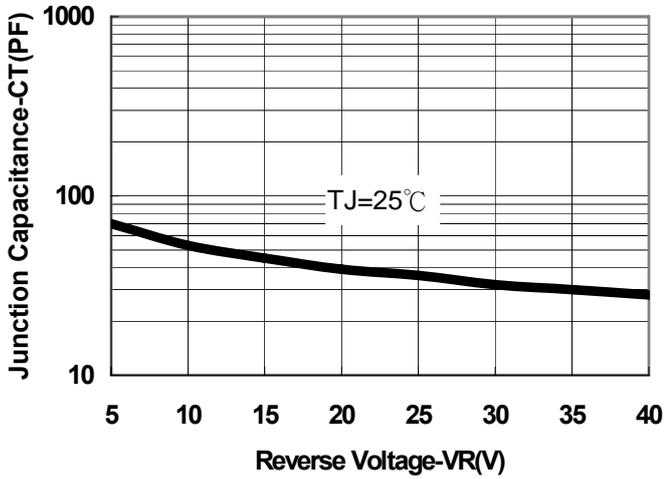


Fig.1-Typical Junction Capacitance Vs.Reverse Voltage

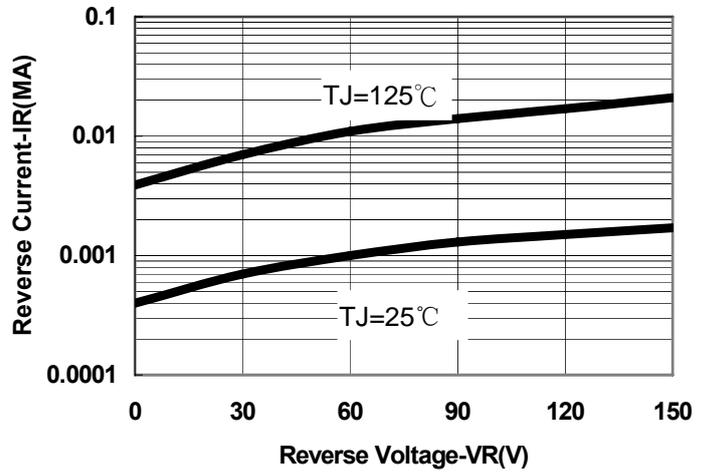


Fig.2-Typical Values Of Reverse Current Vs.Reverse Voltage

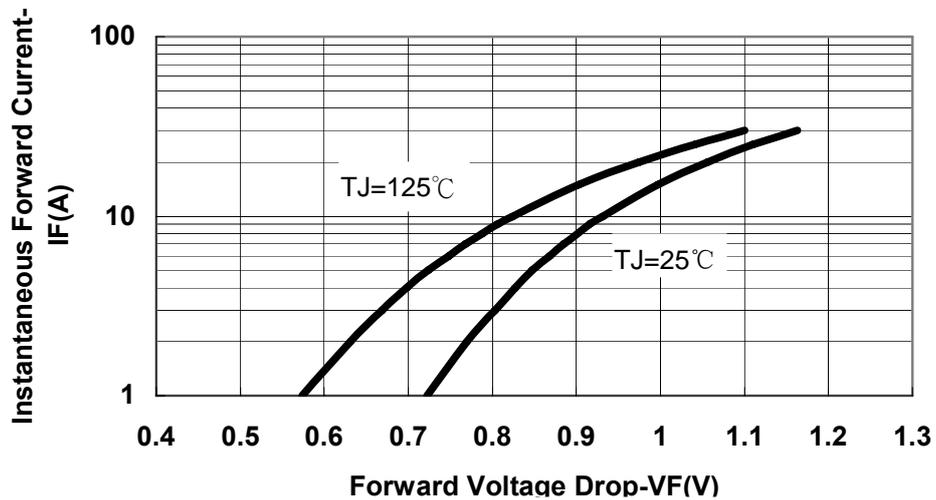


Fig.3-Typical Forward Voltage Drop Characteristics



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