Technical Data
Data Sheet N0940. Rev. -

Green products

SK56 SCHOTTKY RECTIFIER

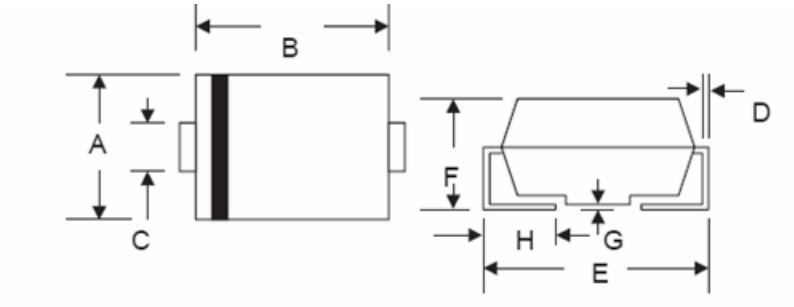
Applications:

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

Features:

- **Small foot print, surface mountable**
- **Very low forward Voltage Drop**
- **High frequency operation**
- **Guard ring for enhanced ruggedness and long term reliability**
- **Green Products in Compliance the ROHS Directive**
- **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)



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	

SMC

Technical Data
Data Sheet N0940. Rev. -

Green products

Marking Diagram:

Where XXXXX is YYWWL

SK56	= Part Name
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information

Device	Package	Shipping
SK56	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}	-	60	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @T_C=105°C, rectangular wave form	5	A
Max. Peak Repetitive Forward Current	I_{FRM}	At Rated VR, Square Wave,20KHZ,TC=80℃	10	A
Max. peak one cycle Non-repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	125	A

Technical Data
Data Sheet N0940. Rev. -

Green products

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 5A, Pulse, T_J = 25 °C	0.7	V
	V_{F2}	@ 5 A, Pulse, T_J = 125 °C	0.64	V
Max. Reverse Current (per leg) *	I_{R1}	@V_R = rated VR T_J = 25 °C	1.0	mA
	I_{R2}	@V_R = rated VR T_J = 125 °C	20	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	400	pF
Max.Voltage Rate of Change	dv/dt	-	10,000	V/us

* Pulse Width < 300μs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	°C
Max. Storage Temperature	T_{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Lead	$R_{\theta JL}$	-	20	°C/W
Maximum Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	-	84	°C/W
Approximate Weight	Wt	-	0.65	
Case Style	SMC			

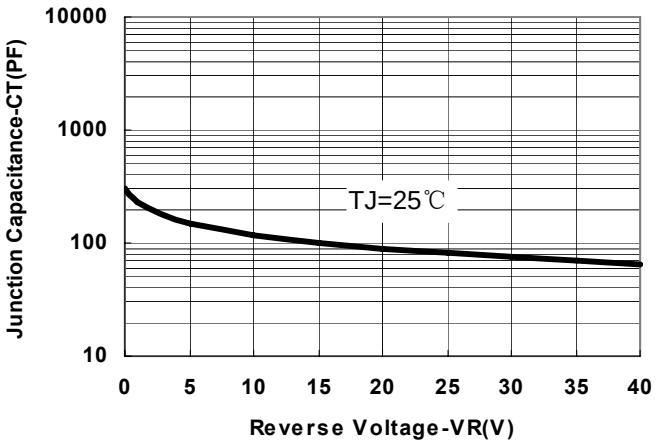


Fig.1-Typical Junction Capacitance Vs.Reverse Voltage

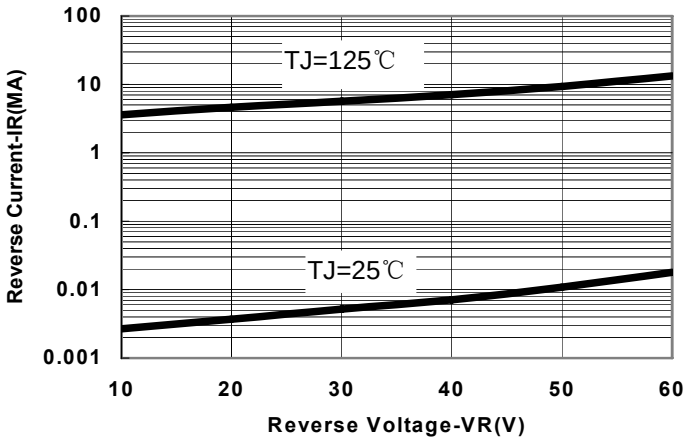


Fig.2-Typical Values Of Reverse Current VS.Reverse Voltage

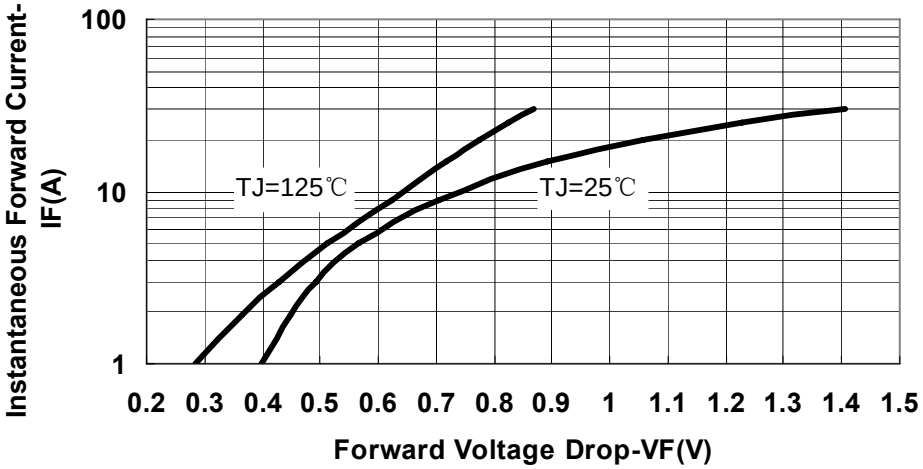


Fig.3-Typical Forward Voltage Drop Characteristics

Technical Data
Data Sheet N0940. Rev. -

Green products

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