

Technical Data Data Sheet N0941, Rev. - **Green Products**

SK56B

SK56B SCHOTTKY RECTIFIER

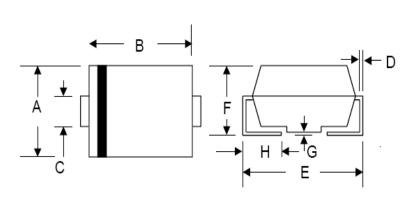
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Disk drives
- Battery charging

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



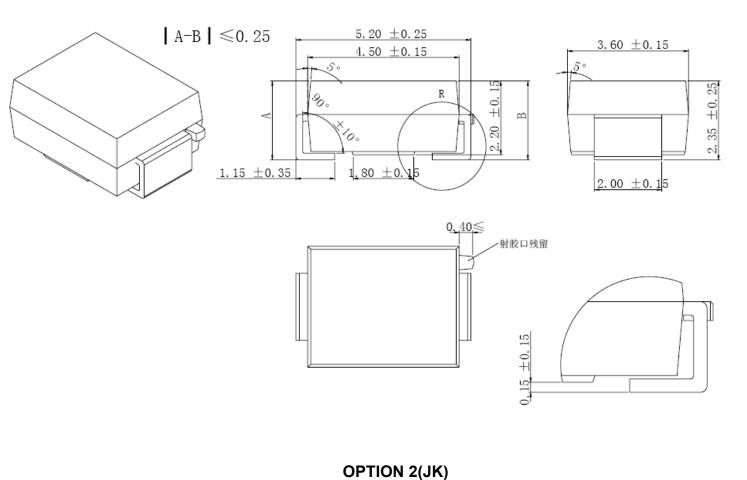
SMB/DO-214AA					
Dim	Min	Max	Min	Мах	
Α	3.30	3.94	0.130	0.155	
В	4.06	4.70	0.160	0.185	
С	1.91	2.11	0.075	0.083	
D	0.152	0.305	0.006	0.012	
E	5.08	5.59	0.2	0.220	
F	2.13	2.44	0.084	0.096	
G	0.051	0.203	0.002	0.008	
Н	0.76	1.27	0.029	0.05	
	in mm		In inch		

OPTION 1



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SMB



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Marking Diagram:

	Where XXXXX is YYWWL		
	SK 5 6 B YY WW L	= Device Type = Forward Current (5A) = Reverse Voltage (60V) = Package type = Year = Week = Lot Number	
Cautions: Molding resin Epoxy resin UL:94V-0			

Ordering Information:

Device	Package	Shipping
SK56B	SMB (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 $@T_c = 105^{\circ}C$, rectangular wave form	5	А
Max. Peak Repetitive Forward Current	IFRM	At Rated VR, Square Wave,20KHZ,TC=80°C	10	А
Max. peak one cycle Non- repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse	125	А

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V _{F1}	@ 5A, Pulse, T _J = 25 °C	0.70	V
(per leg) *	V_{F2}	@ 5 A, Pulse, T _J = 125 °C	0.64	V
Max. Reverse Current (per	I _{R1}	$@V_{R} = rated VR$	1.0	mA
leg) *		T _J = 25 °C		
	I _{R2}	$@V_{R} = rated VR$	20	mA
		T _J = 125 °C		
Max. Junction Capacitance	CT	@V _R = 5V, T _C = 25 °C	400	pF
(per leg)		f _{SIG} = 1MHz		
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	ΤJ	-	-55 to +150	°C
Max. Storage Temperature	T _{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Lead	$R_{ extsf{ heta}JL}$	-	20	°C/W
Maximum Thermal Resistance, Junction to Ambiebt	$R_{ ext{ heta}JA}$	-	84	°C/W
Approximate Weight	wt	-	0.68	g
Case Style		SMB		I



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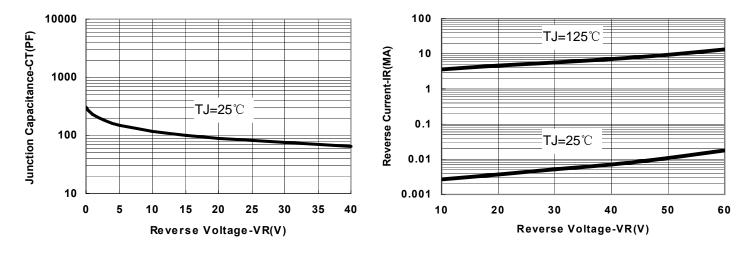




Fig.2-Typical Reverse Characteristics

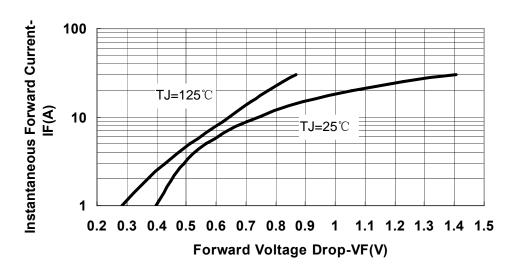


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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