



RB520S40

SURFACE MOUNT SCHOTTKY BARRIER DIODE

FEATURES

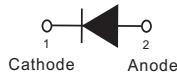
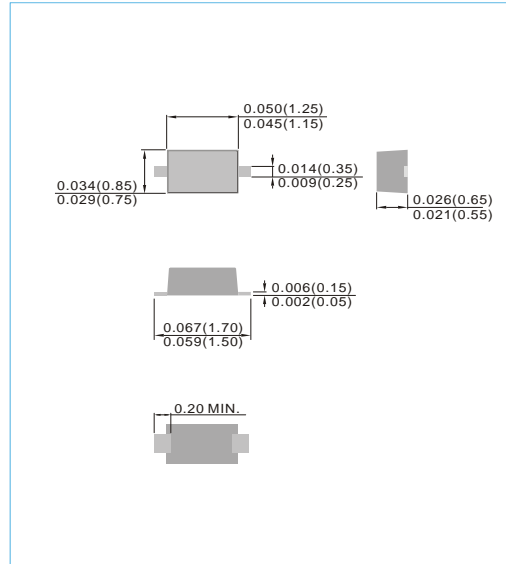
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Mount Package
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Appox Weight : 0.00005 ounces, 0.0014 grams

SOD-523

Unit : inch(mm)



MAXIMUM RATINGS@T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Forward Continuous Current (Note 1)	I _{FM}	250	mA
Non-Repetitive Peak Forward Surge Current@t _≤ 1s	I _{FSM}	1	A

THERMAL CHARACTERISTICS@T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P _D	150	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	667	°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to +125	°C

- Notes : 1.Part mounted on FR-4 board with recommended pad layout
2.Short duration pulse test used so as to minimize self-heating effect



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ELECTRICAL CHARACTERISTICS@T_A=25°C unless otherwise specified

Characteristic	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	I _R =10μA	V _{BR(R)}	40	-	-	V
Forward Voltage Drop	I _F =20mA I _F =200mA	V _F	-	-	0.37 0.6	V
Peak Reverse Current (Note 2)	V _R =30V V _R =10V	I _R	-	-	5 1	μA
Total Capacitance	V _R =0V, f=1MHz	C _T	-	50	-	pF
Reverse Recovery Time	I _F =I _R =200mA, I _{RR} =0.1 x I _R , R _L =100Ω	T _{RR}	-	10	-	ns



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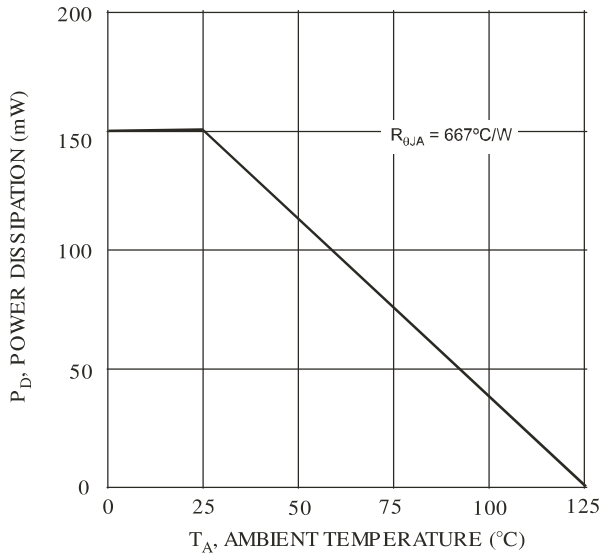


Fig. 1 Derating Curve

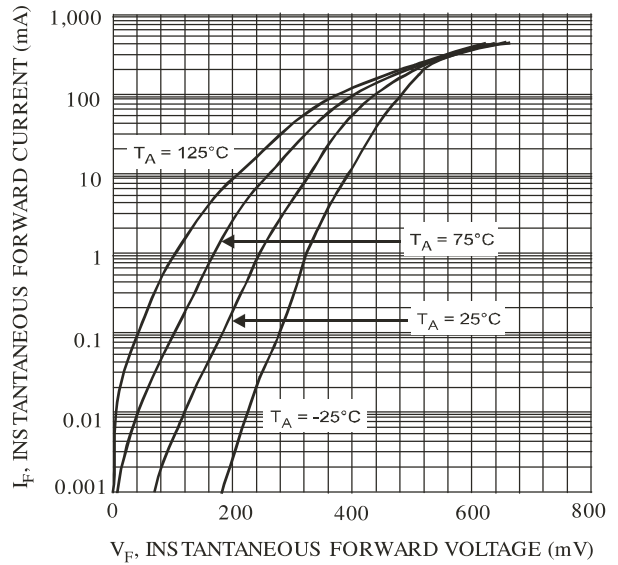


Fig. 2 Typical Forward Characteristics

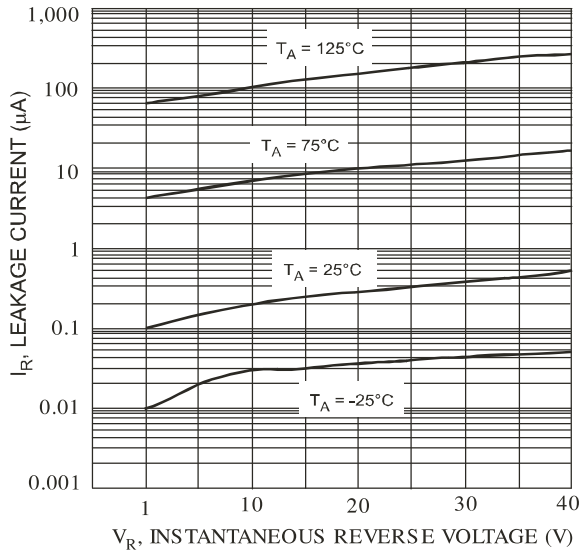


Fig. 3 Typical Reverse Characteristics

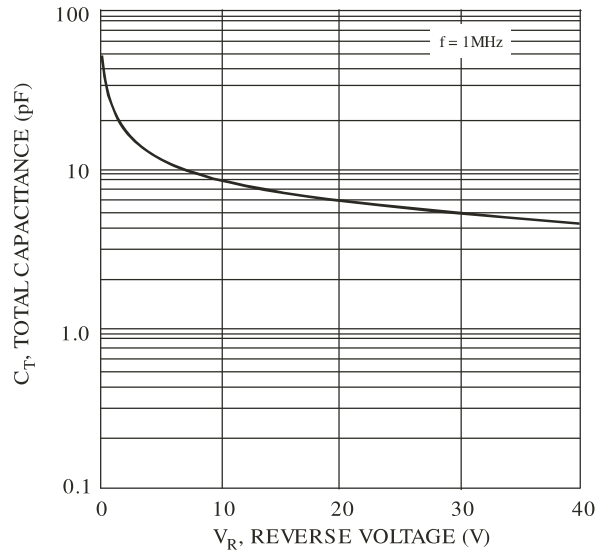


Fig. 4 Typ. Total Capacitance vs. Reverse Voltage

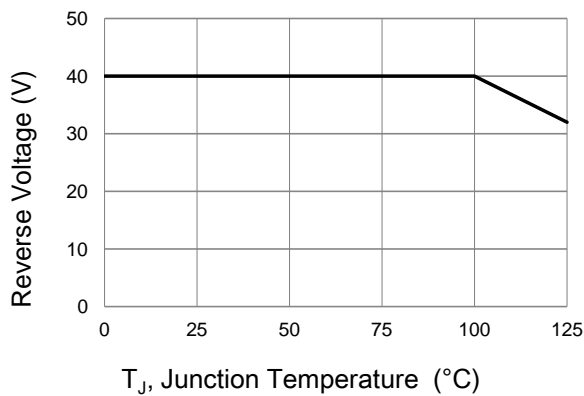


Fig.5 Operating Temperature Derating Curve



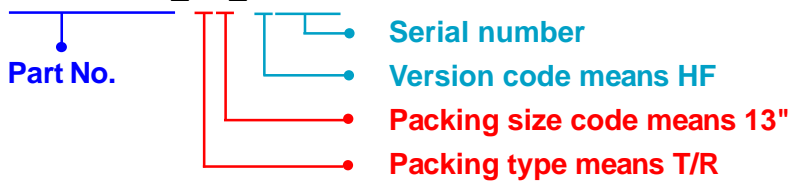
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PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
RB520S40_R1_00001	SOD-523	5K pcs / 7" reel	22	Halogen free
RB520S40_R2_00001	SOD-523	12K pcs / 13" reel	22	Halogen free

For example :

RB500V-40_R2_00001

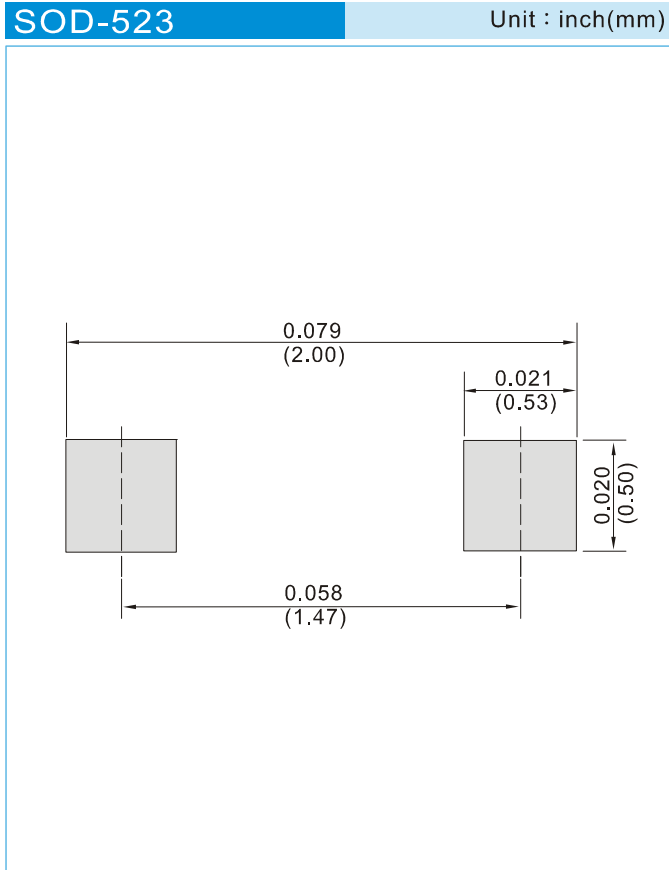


Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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MOUNTING PAD LAYOUT





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