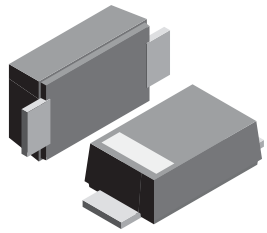
RB521S-20 - RB521S-40

SURFACE MOUNT SCHOTTKY BARRIER DIODES

VOLTAGE RANGE: 20 - 40V
CURRENT: 1.0 A



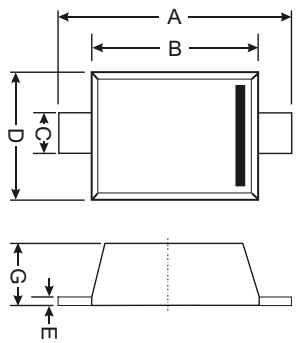
Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SOD-523, Plastic
- Case material - UL Flammability Rating
- Classification 94V-0
- Weight: 0.002 grams (approx.)

RoHS COMPLIANT



SOD-523		
Dim	**Min**	**Max**
A	1.50	1.70
B	1.10	1.30
C	0.25	0.35
D	0.70	0.90
E	0.10	0.20
G	0.50	0.70
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	RB521S-20	RB521S-30	RB521S-40	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current @T_L = 75°C	I_O	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30			A
Forward Voltage @I_F = 1.0A	V_{FM}	0.38	0.38	0.40	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20			mA
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	88			K/W
Operating Temperature Range	T_j	-65 to +125			°C
Storage Temperature Range	T_{STG}	-65 to +150			°C

Note: 1. Mounted on P.C. Board with 5.0mm^2 (0.13mm thick) copper pad areas

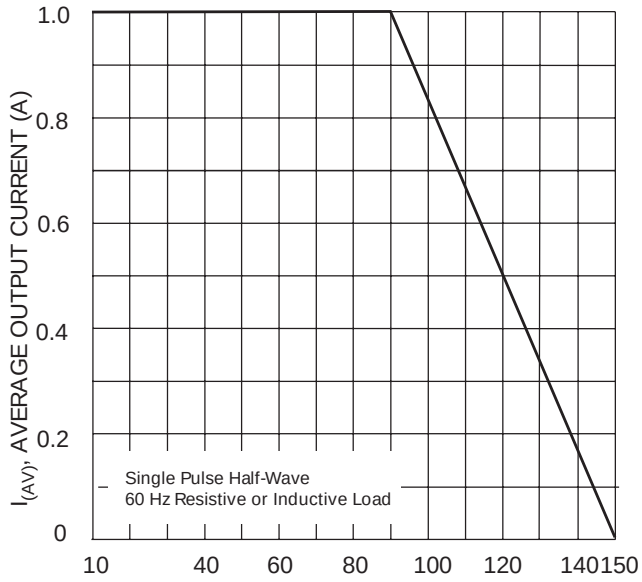


Fig. 1 Forward Current Derating Curve

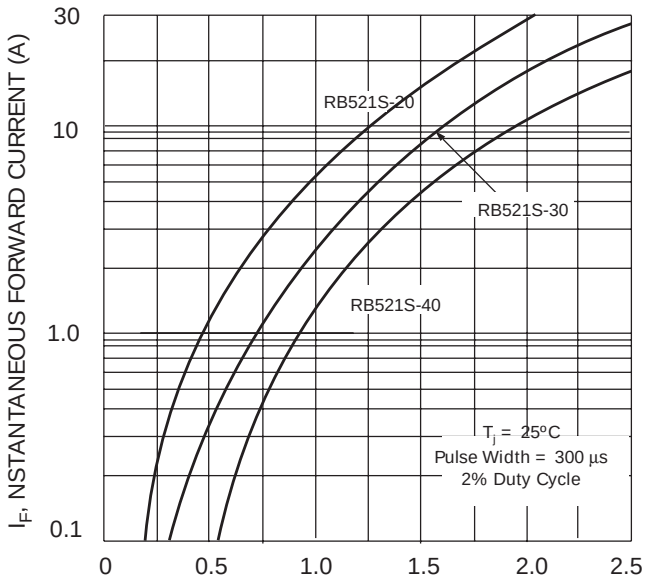


Fig. 2 Typical Forward Characteristics

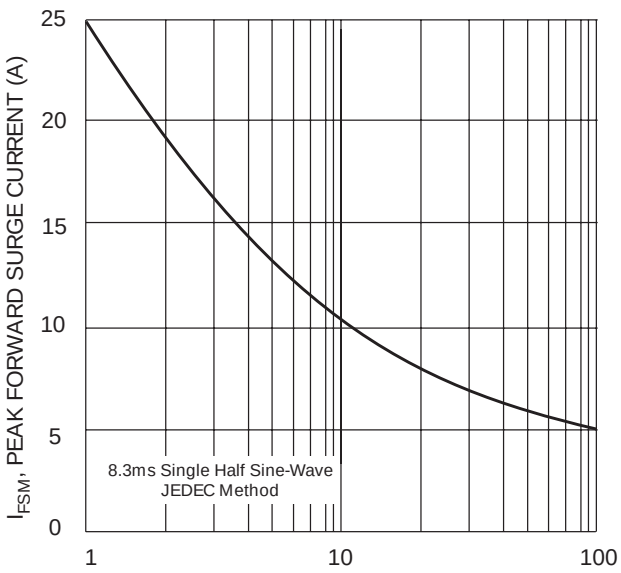


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

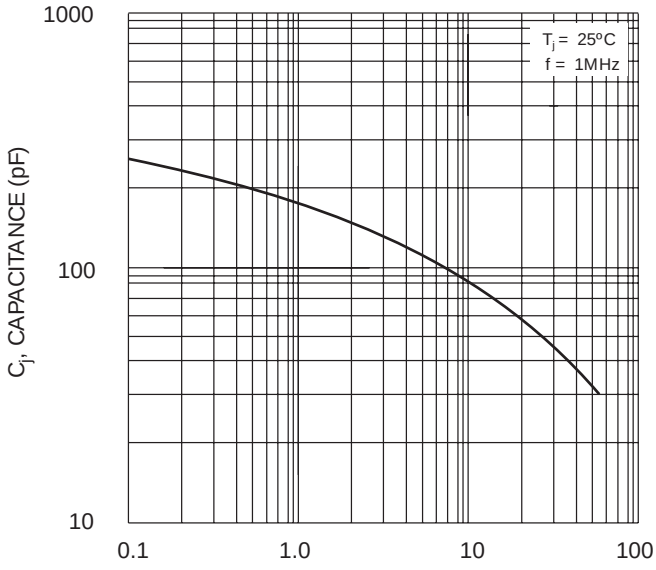


Fig. 4 Typical Junction Capacitance