



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

E-mail: frontiersales@frontierusa.com

Web: <http://www.frontierusa.com>

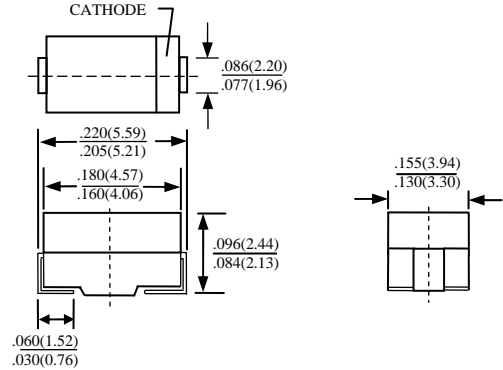
5A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS SS52B THRU SS510B

FEATURES

- FOR SURFACE MOUNTED APPLICATIONS
- LOW PROFILE PACKAGE
- BUILT-IN STRAIN RELIEF
- EASY PICK AND PLACE
- PLASTIC MATERIAL USED CARRIES UNDERWRITERS LABORATORY CLASSIFICATION 94 V-0
- EXTREMELY LOW VF
- MAJORITY CARRIER CONDUCTION
- HIGH TEMPERATURE SOLDERING: 250°C/10 SECONDS AT TERMINALS

MECHANICAL DATA

- CASE: MOLDED PLASTIC, DO-214AA (SMB), DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDER PLATED
- POLARITY INDICATED BY CATHODE BAND
- WEIGHT 0.093 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	20	30	40	50	60	80	100	V
MAXIMUM RMS VOLTAGE	V_{RMS}	14	21	28	35	42	56	70	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	20	30	40	50	60	80	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	I_O	5.0							A
MAXIMUM OVERLOAD SURGE 8.3ms SINGLE HALF SINE-WAVE	I_{FSM}	150							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	300							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JL}$	17							°C/W
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JA}$	55							°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150							°C
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 125							°C

ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	UNITS
MAXIMUM FORWARD VOLTAGE AT 5.0A AND 25°C	V_F	0.55			0.70		0.85		V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	1							mA

NOTE: 1. MEASURED AT 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V

2. P.C.B. MOUNTED 0.55"x0.55" (14x14 mm) 0.013mm THICK COPPER PAD AREAS

3. SMA PACKAGE SUFFIX "A", SMB PACKAGE SUFFIX "B", SMC NO SUFFIX

RATINGS AND CHARACTERISTIC CURVE SS52B THRU SS510B

FIG. 1 - FORWARD CURRENT DERATING CURVE

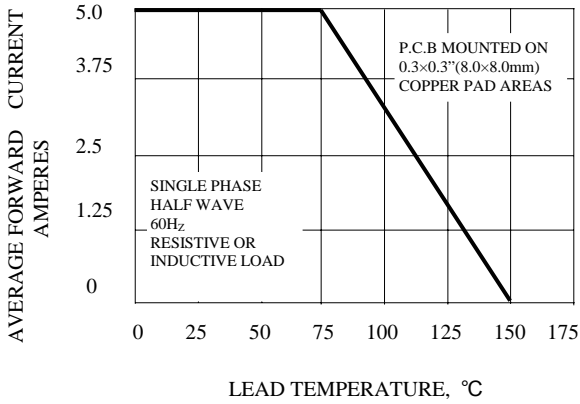


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

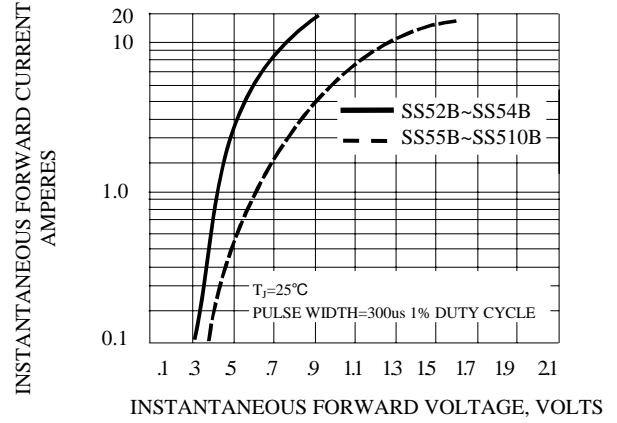


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

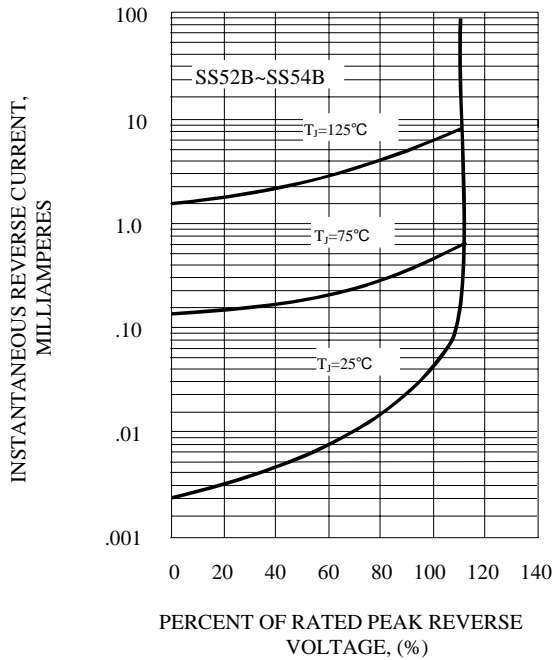


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

