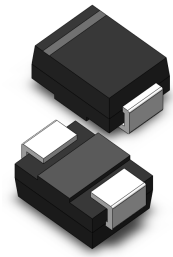
MBRS220 - MBRS2100

SURFACE MOUNT SCHOTTKY BARRIER DIODES

VOLTAGE RANGE: 20 - 100V
CURRENT: 2.0 A



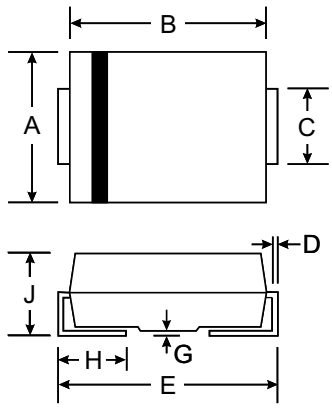
Features

- 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: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

RoHS COMPLIANT



SMB(DO-214AA)		
Dim	**Min**	**Max**
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
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	MBRS220	MBRS230	MBRS240	MBRS260	MBRS2100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	60	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	42	71	V
Average Rectified Output Current @T_L = 105°C	I_O	2.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50					A
Forward Voltage @I_F = 2.0A	V_{FM}	0.50			0.70	0.85	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 (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	17 75					°C/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 8.0mm^2 copper pad area.

FIG. 1 - FORWARD CURRENT DERATING CURVE

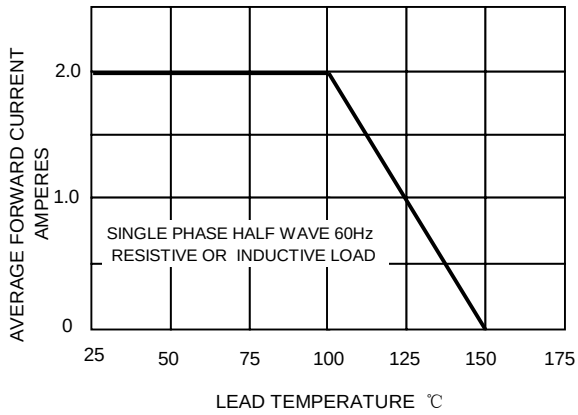


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

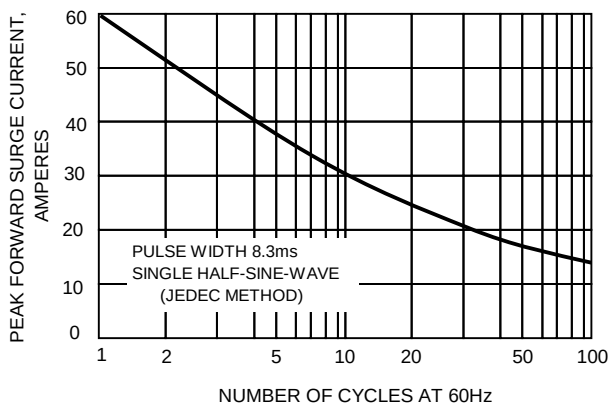


FIG.4-TYPICAL FORWARD CHARACTERISTICS

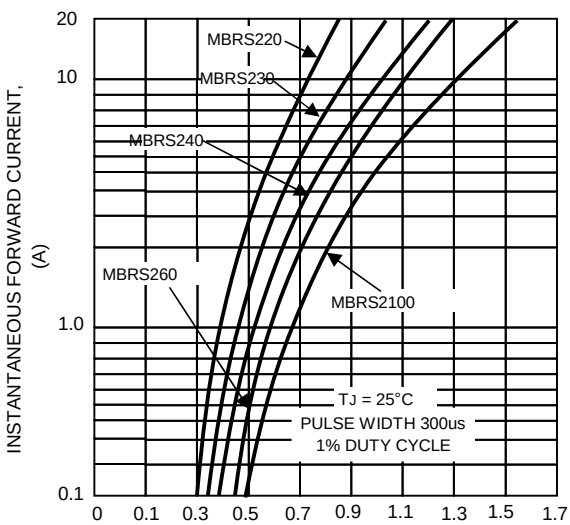


FIG.4-TYPICAL JUNCTION CAPACITANCE

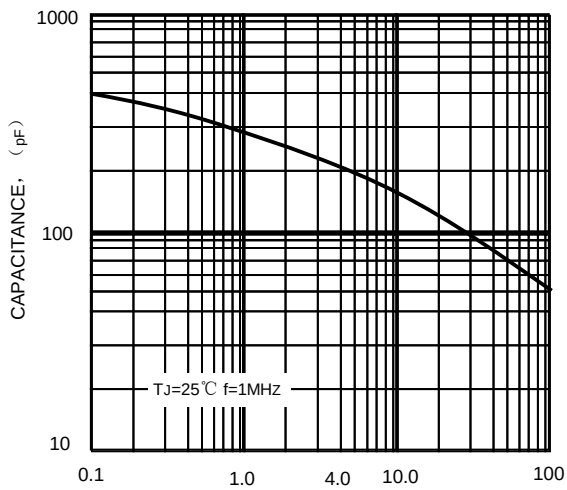


FIG.5-TYPICAL REVERSE CHARACTERISTICS