



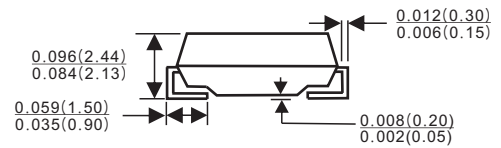
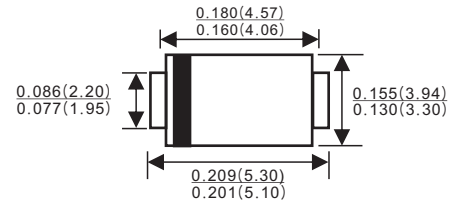
Features

- ✧ Low cost
- ✧ Low leakage
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ Easily cleaned with alcohol, Isopropanol and similar solvents
- ✧ The plastic material carries U/L recognition 94V-0

VOLTAGE RANGE: 50 --- 600 V

CURRENT: 3.0 A

SMB/DO-214AA



Dimensions in inches and (millimeters)

Mechanical Data

- ✧ Case: JEDEC DO-214AA, molded plastic
- ✧ Polarity: Color band denotes cathode
- ✧ Weight: 0.003 ounces, 0.093 grams
- ✧ Mounting position: Any

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 by 20%.

Parameter	Symbol	ER3AB	ER3BB	ER3CB	ER3DB	ER3EB	ER3GB	ER3JB		
Marking code		ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	UNITS	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V	
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V	
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V	
Maximum average forward rectified current @ $T_A=75^\circ C$	$I_{F(AV)}$	3.0							A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	100							A	
Maximum instantaneous forward voltage @ 3.0A	V_F	0.95				1.25		1.7	V	
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=125^\circ C$	I_R	5.0				300				μA
Maximum reverse recovery time (Note 1)	t_{rr}	35				ns				
Typical junction capacitance (Note 2)	C_J	95				pF				
Typical thermal resistance (Note 3)	$R_{\theta JA}$	40				$^\circ C/W$				
Operating junction temperature range	T_J	- 55 ----- + 150							$^\circ C$	
Storage temperature range	T_{STG}	- 55 ----- + 150							$^\circ C$	

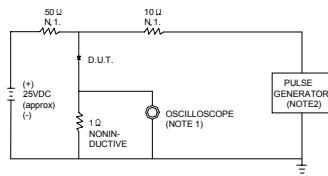
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

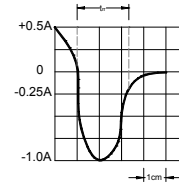
3. Thermal resistance junction to ambient.



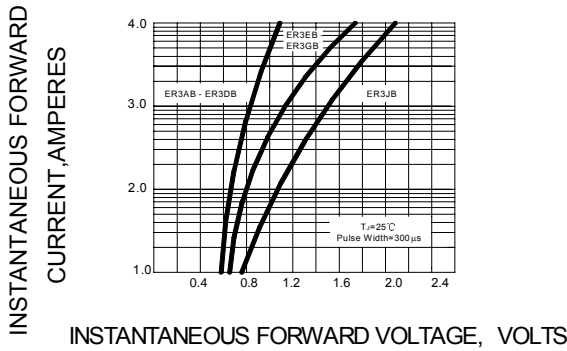
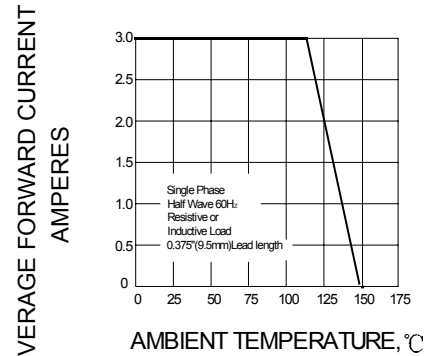
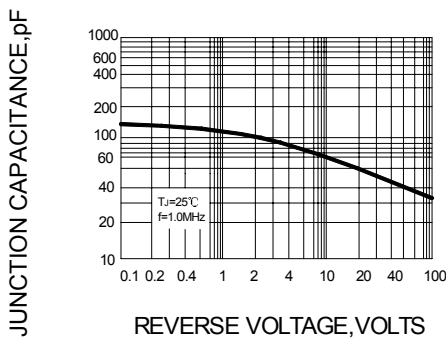
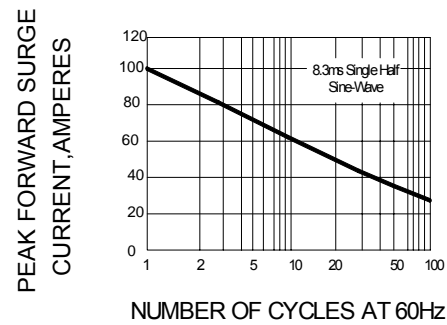
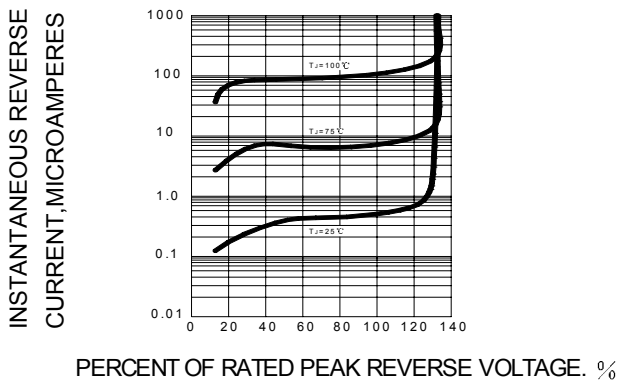
Ratings AND Characteristic Curves

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC


NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ .22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω .



SET TIME BASE FOR 10 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

FIG.3 – FORWARD DERATING CURVE

FIG.4 – TYPICAL JUNCTION CAPACITANCE

FIG.5 – PEAK FORWARD SURGE CURRENT

FIG.6 – TYPICAL REVERSE CHARACTERISTICS


PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMB	3000/REEL	48000	36X35.8X36.5	12.00	11.00