

FEATURES

- Glass Passivated Die Construction
- Super-Fast Recovery Time For High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automated Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0



DO-214AA (SMB)

MECHANICAL DATA

- Case: DO-214AA Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 93mg (approx.)



Cathode

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%.

Parameter		Symbol	ER2A	ER2B	ER2C	ER2D	ER2E	ER2G	ER2J	ER 2 K	ER 2 M	Unit
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	100	150	200	300	400	600	800	1000	v
Maximum RMS Voltage		V _{RMS}	35	70	105	140	210	280	420	560	700	v
Maximum DC Blocking Voltage		V _{DC}	50	100	150	200	300	400	600	800	1000	v
Maximum Average Forward Rectified Current at T _A =75 °C		I _{F(AV)}	2.0									A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC)		I _{FSM}	50.0									A
Maximum Instantaneous Forward Voltage at 2 A		V _F	0.975				1.35			1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25 °C T _A =100 °C	I _R	5.0 150.0									μA
Maximum reverse recovery time (NOTE1)		t _{rr}	50				60			100		nS
Typical Junction Capacitance (NOTE2)		C _J	25.0									pF
Maximum Thermal Resistance (NOTE3)		R _{θJL}	20.0									°C/W
Operating and Storage Temperature Range		T _J , T _S	-50 to +150									°C

Note: 1.Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3.P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

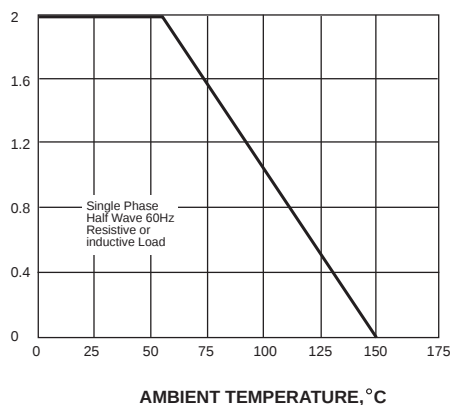
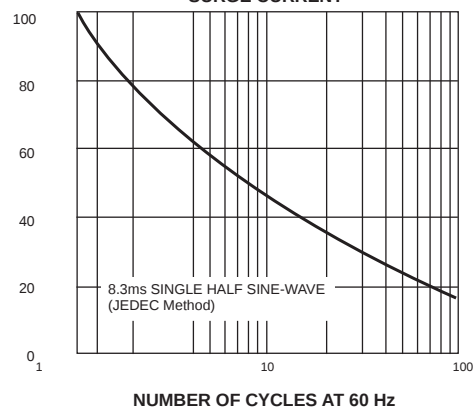
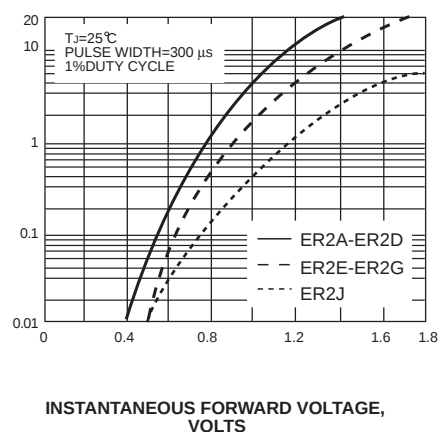
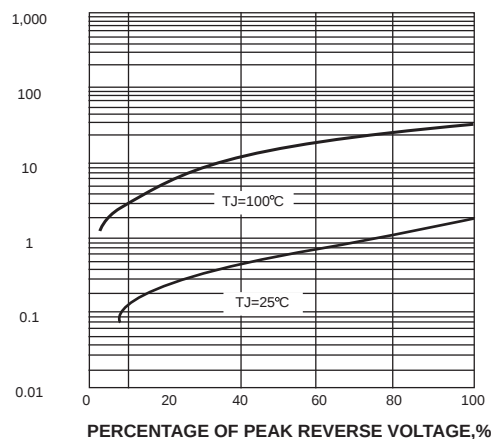
PEAK FORWARD SURGE CURRENT,
AMPERESFIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD
SURGE CURRENTINSTANTANEOUS FORWARD
CURRENT, AMPERESFIG. 3-TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICSINSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

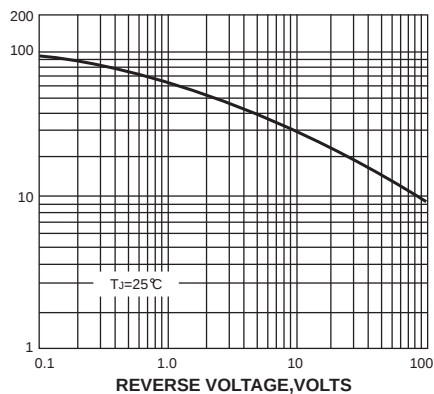
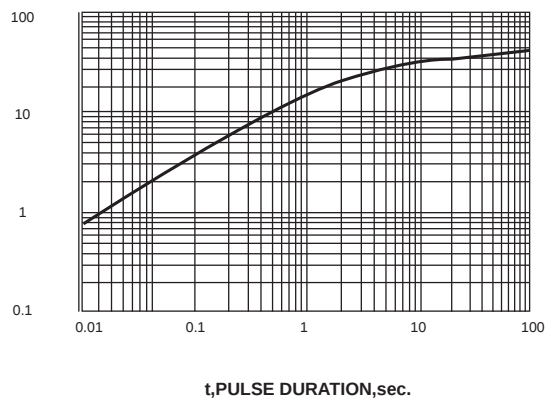
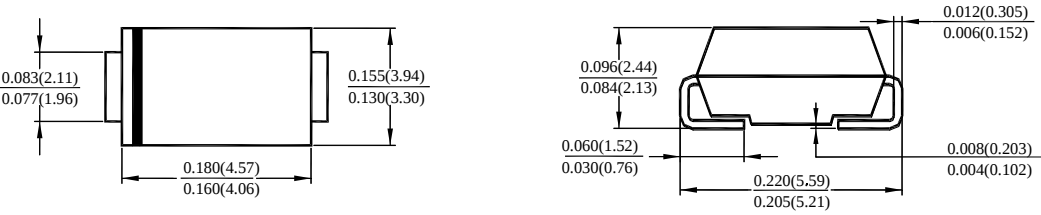
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

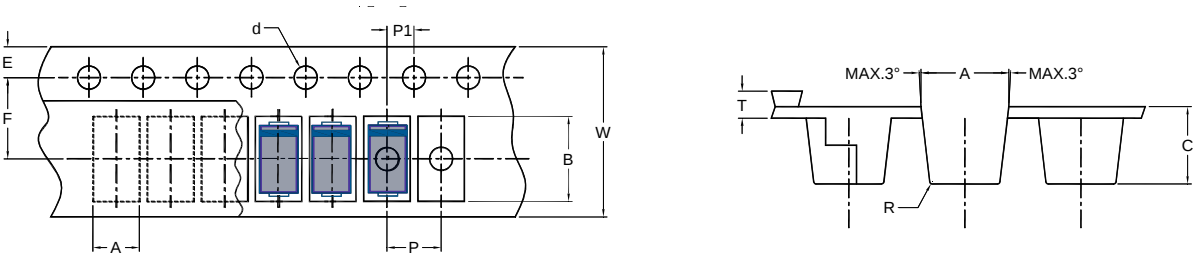


SMB Package Outline Dimensions



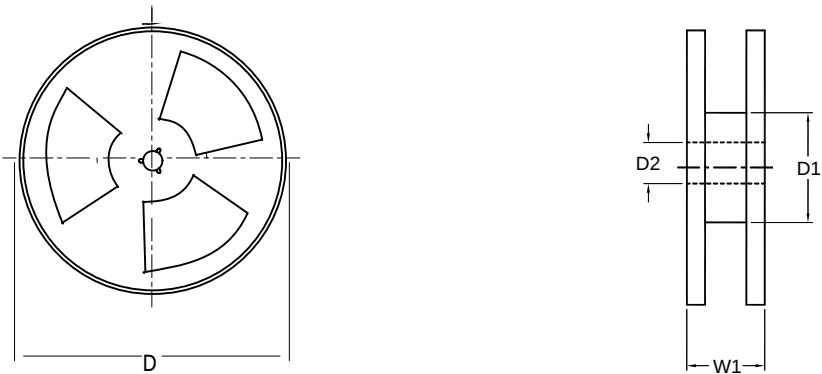
(DIMENSIONS ARE IN MILLIMETER)

SMB Embossed Carrier Tape



	DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P	P0	P1	T	W
SMB	3.65	5.69	2.67	1.5	1.5	5.65	8	4	2	0.6 Max	12
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.1	±0.1	±0.1	±0.2	±0.2

SMB Reel



	DIMENSIONS ARE IN MILLIMETER			
REEL OPTION	D	D1	D2	W1
7" DIA	178	50 min	13	16.8
TOLERANCE	±2	±0.1	±0.5	±2