

SURFACE MOUNT SUPER FAST RECTIFIERS

ER1A THRU ER1J

50V-600V 1.0A

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory
 Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering:
 260 ¢J/10 seconds at terminals

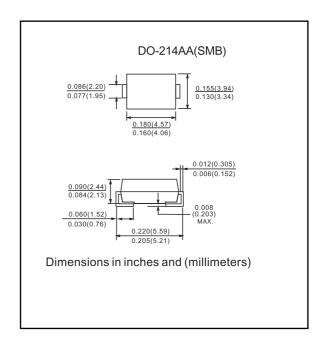
MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 0.093 gram



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

Characteristic		Symbol	ER1A	ER1B	ER1C	ER1D	ER1E	ER1G	ER1J	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		VRRM VRWM VR	50	100	150	200	300	400	600	V
RMS Reverse Voltage		VR(RMS)	35	70	105	140	210	280	420	V
Average Rectified Output Current	@T _L = 100°C	lo	lo 1.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	30							А
Forward Voltage	@I _F = 1.0A	VFM	0.95 1.25				1.7	V		
Peak Reverse Current At Rated DC Blocking Voltage	@T _A = 25°C @T _A = 100°C	lгм	5.0 500						μA	
Reverse Recovery Time (Note 1)		trr	35							nS
Typical Junction Capacitance (Note 2)		Cj	10							pF
Typical Thermal Resistance (Note 3)		$R_{ heta}JL$	34							K/W
Operating and Storage Temperature Range		Tj, Tstg	-65 to +150							°C

Note: 1. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$,

E-mail: sales@taychipst.com

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

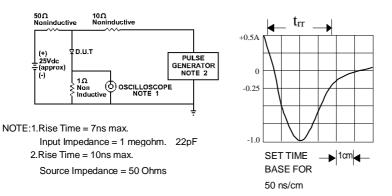
3. Mounted on P.C. Board with 8.0mm2 land area.



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SINGLE PHASE HALF WAVE RESISTIVE OR INDUCTIVE AVERAGE FORWARD **CURRENT AMPERES** P.C.B MOUNTED ON -0.315×0.315"(8.0×8.0mm) **PAD AREAS** 50 75 100 125 150 175 LEAD TEMPERATURE, ¢J

Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

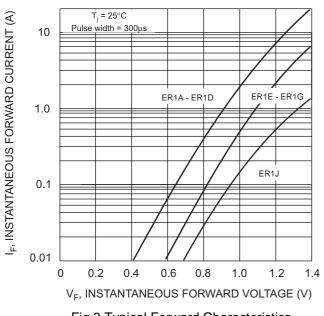


Fig.3 Typical Forward Characteristics

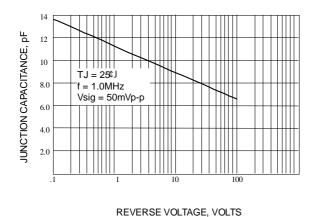


Fig. 5-TYPICAL JUNCTION CAPACITANCE



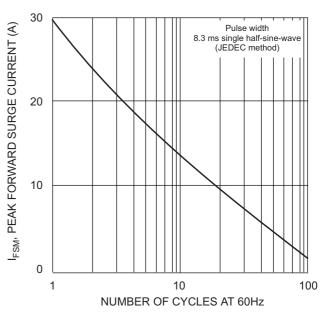


Fig.4 PEA FORWARD SURGE CURRENT