Micro Commercial Components
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ER300 THRU ER306

3 Amp Super Fast Recovery Rectifier 50 to 600 Volts

Features

- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Hermetically sealed
- Low leakage , High surge capability

Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance 20°C/W Junction to ambient

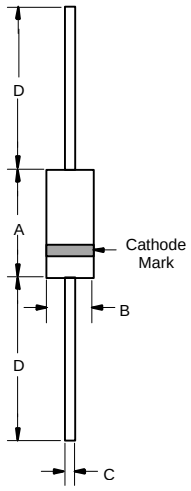
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ER300	ER300	50V	35V	50V
ER301	ER301	100V	70V	100V
ER301A	ER301A	150V	105V	150V
ER302	ER302	200V	140V	200V
ER303	ER303	300V	210V	300V
ER304	ER304	400V	280V	400V
ER306	ER306	600V	420V	600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

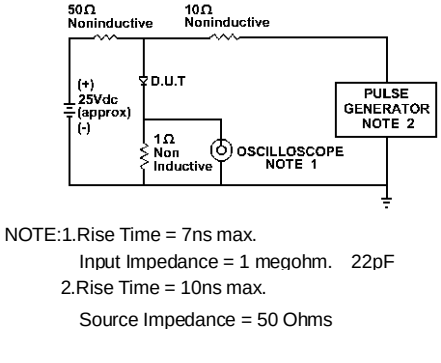
Average Forward Current	$I_{F(AV)}$	3 A	T_A = 55°C
Peak Forward Surge Current	I_{FSM}	125A	8.3ms, half sine
Maximum Instantaneous Forward Voltage ER300-302 ER303-304 ER306	V_F	 0.95V 1.25V 1.70V	 I_{FM} = 3.0A; T_A = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5µA 300µA	T_A = 25°C T_A = 125°C
Maximum Reverse Recovery Time	T_{rr}	35ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
Typical Junction Capacitance	C_J	35pF	Measured at 1.0MHz, V_R=4.0V

*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

DO-201AD



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	---	.370	---	9.50	
B	---	.250	---	6.40	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	



NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

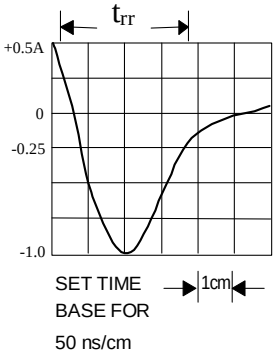


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

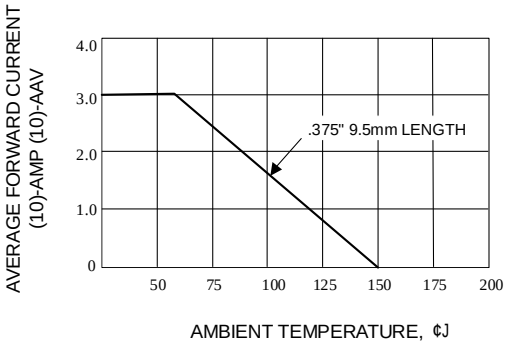


Fig. 2-MAXIMUM AVERAGE FORWARD CURRENT RATING

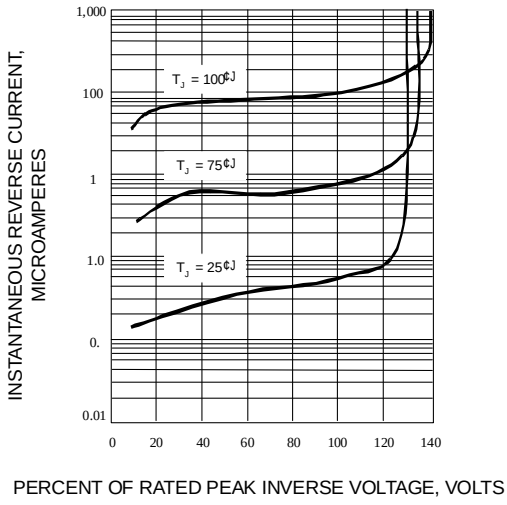


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

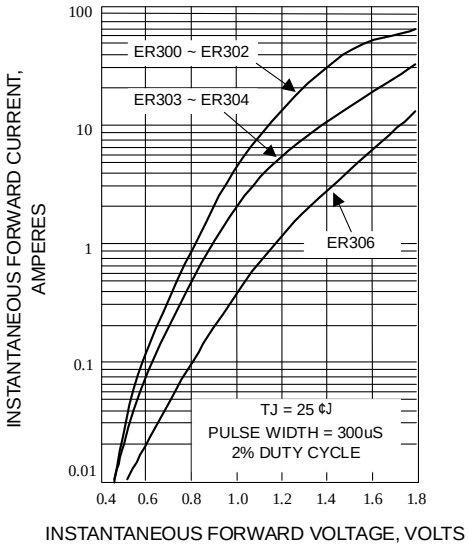


Fig. 4-FORWARD CURRENT DERATING CURVE

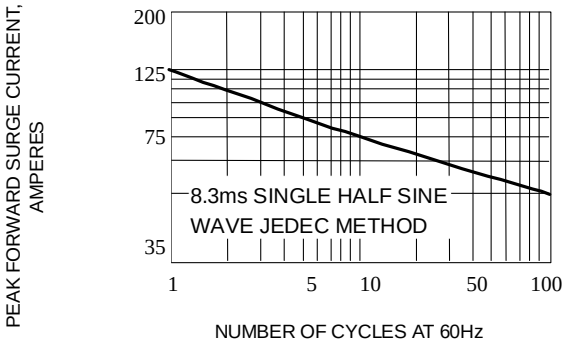


Fig. 5-MAXIMUM NON-REPETITIVE SURGE CURRENT

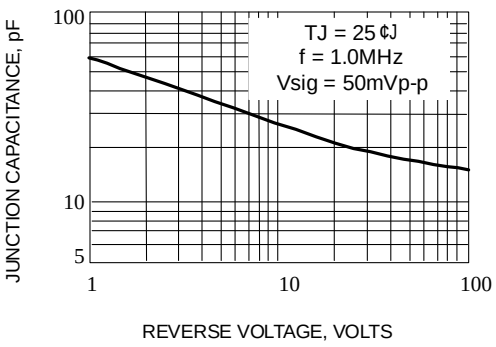


Fig. 6-TYPICAL JUNCTION CAPACITANCE