

ER2005 THRU ER210

2 Amperes Leaded Type Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Features	Outline
<ul style="list-style-type: none"> • Axial lead type devices for through hole design. • High current capability. • Superfast recovery time for switching mode application. • High surge current capability. • Glass passivated chip junction. • Suffix "G" indicates Halogen free parts, ex. ER2005G • Lead-free parts meet environmental standards of MIL-STD-19500 /228 	<p>DO-15(DO-204AC)</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
Mechanical data	
<ul style="list-style-type: none"> • Epoxy:UL94-V0 rated flame retardant • Case : Molded plastic, DO-204AC / DO-15 • Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed • Polarity : Color band denotes cathode end • Weight : Approximated 0.39 gram 	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	ER2005	ER201	ER202	ER204	ER206	ER208	ER210	UNIT	
Making code		ER2005	ER201	ER202	ER204	ER206	ER208	ER210		
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700		
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000		
Maximum Forward Voltage	V_F	0.95			1.25	1.70			V	
Operating Temperature	T_J	-50 ~ +150								°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_O			2.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM} T_A = 25^\circ C$	I_R			5.0	uA
	$V_R = V_{RRM} T_A = 100^\circ C$				300	
Maximum reverse recovery time	$I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	T_{rr}			35	nS
Typical thermal resistance	8.0mm ² (0.013mm thick) land areas	$R_{\theta JL}$		20		°C/W
Typical junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		25		pF

ER2005 THRU ER210

2 Amperes Leded Type Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

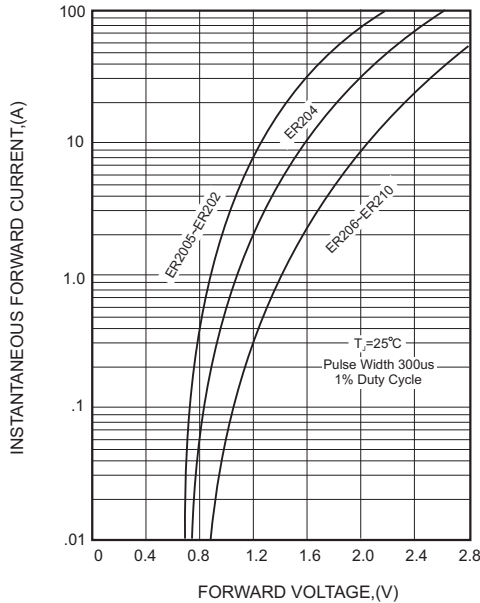


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

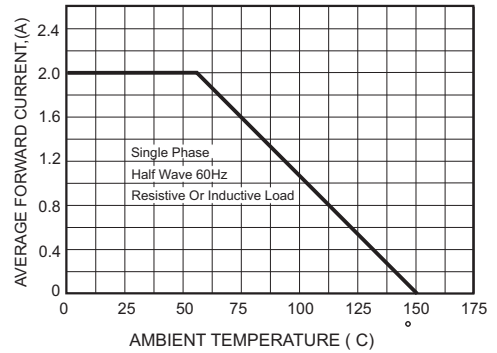


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

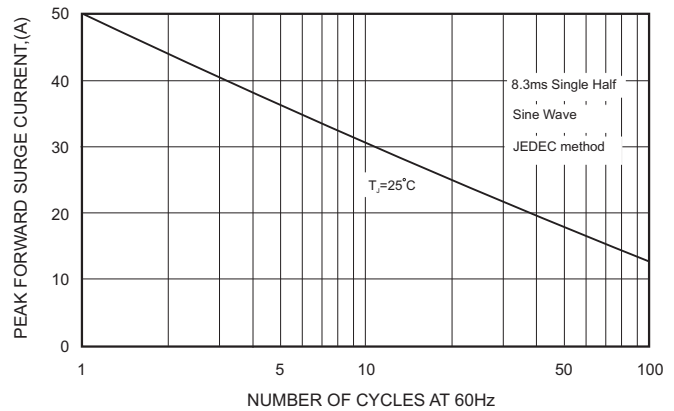
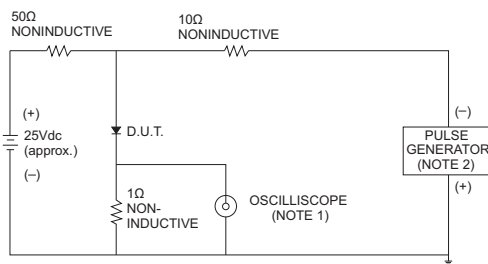


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

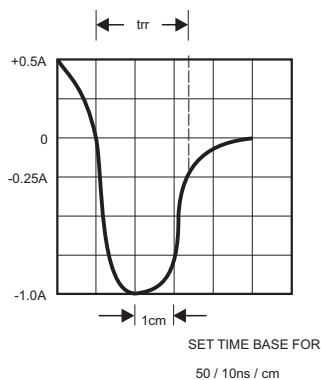


FIG.5-TYPICAL JUNCTION CAPACITANCE

