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# ER5A **THRU** ER5J

## **Features**

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1 High Temp Soldering: 260°C for 10 Seconds At Terminals
- Super Fast Recovery Times For High Efficiency
- Halogen free available upon request by adding suffix "-HF"

# **5 Amp Superfast Recovery Rectifiers** 50 to 600 Volts

- Operating Temperature: -50°C to +150°C Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 16°C/W Junction To Lead

MCC		Maximum	Maximum	Maximum
Part	Device	Recurrent	RMS	DC
Number	Marking	Peak Reverse	Voltage	Blocking
		Voltage	_	Voltage
ER5A	ER5A	50V	35V	50V
ER5B	ER5B	100V	70V	100V
ER5C	ER5C	150V	105V	150V
ER5D	ER5D	200V	140V	200V
ER5G	ER5G	400V	280V	400V
ER5J	ER5J	600V	420V	600V

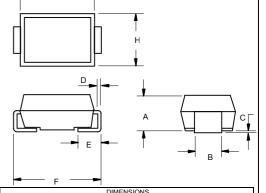
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	5.0A	$T_A = 55^{\circ}C$
Peak Forward Surge	I <sub>FSM</sub>	175A	8.3ms, half sine
Current			
Maximum			
Instantaneous			
Forward Voltage			
ER5A-5D	$V_{F}$	1.00V	$I_{FM} = 5.0A;$
ER5G		1.30V	$T_A = 25^{\circ}C^*$
ER5J		1.70V	
Maximum DC			0
Reverse Current At	$I_R$	10μΑ	$T_A = 25^{\circ}C$
Rated DC Blocking		200μΑ	$T_A = 100^{\circ}C$
Voltage			
Maximum Reverse			
Recovery Time			
	$T_{rr}$	35ns	$I_F$ =0.5A, $I_R$ =1.0A,
			I <sub>rr</sub> =0.25A
Typical Junction			Measured at
Capacitance	C₁		1.0MHz, V <sub>R</sub> =4.0V
ER5A-5G		100PF	
ER5J		65PF	

<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 1%

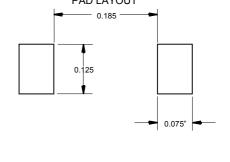
Notes:1.High Temperature Solder Exemption Applied,see EU Directive Annex Notes 7.

# DO-214AB (SMC)(LEAD FRAME) G



DIMENSIONS							
	INCHES		ММ				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α	.079	.103	2.00	2.62			
В	.108	.128	2.75	3.25			
С	.002	.008	0.051	0.203			
D	.006	.012	0.152	0.305			
E	.030	.060	0.76	1.52			
F	305	.320	7.75	8.13			
G	.260	.280	6.60	7.11			
н	220	245	5.50	6.22			

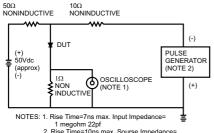
SUGGESTED SOLDER PAD LAYOUT





## ER5A THRU ER5J

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





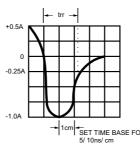


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

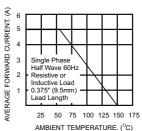


FIG.3- TYPICAL REVERSE CHARACTERISTICS

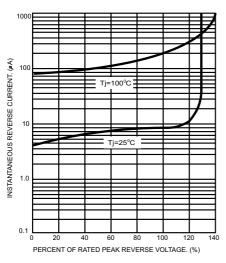


FIG.5- TYPICAL FORWARD CHARACTERISTICS

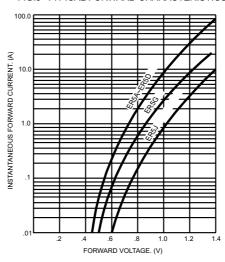


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

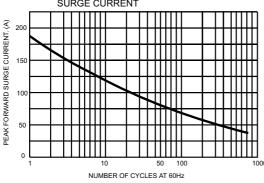
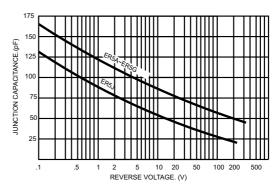


FIG.6- TYPICAL JUNCTION CAPACITANCE





## **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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