

## 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"

### Maximum Ratings

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

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking 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

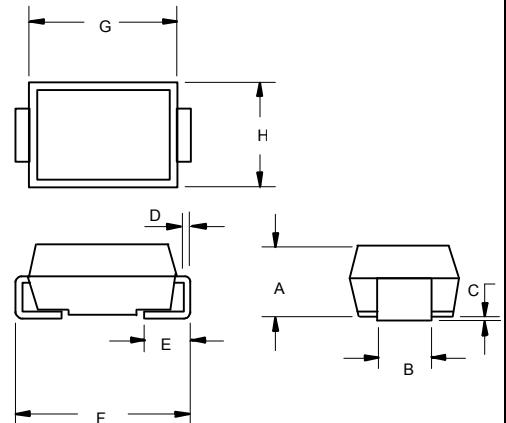
Average Forward Current	$I_{F(AV)}$	5.0A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	175A	8.3ms, half sine
Maximum Instantaneous Forward Voltage ER5A-5D ER5G ER5J	$V_F$	1.00V 1.30V 1.70V	$I_{FM} = 5.0A$ ; $T_A = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage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

\*Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 1%

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

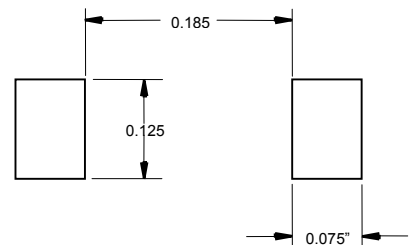
## 5 Amp Superfast Recovery Rectifiers 50 to 600 Volts

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



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.103	2.00	2.62	
B	.108	.128	2.75	3.25	
C	.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	
H	.220	.245	5.59	6.22	

### SUGGESTED SOLDER PAD LAYOUT



## ER5A THRU ER5J

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

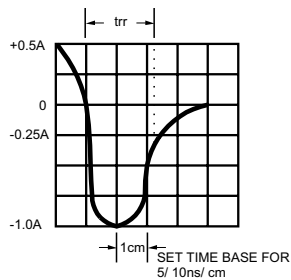
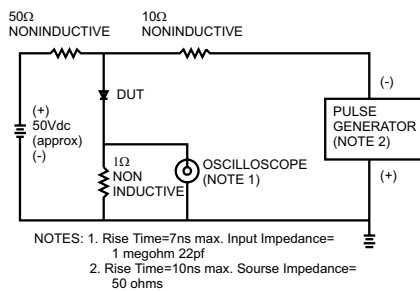


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

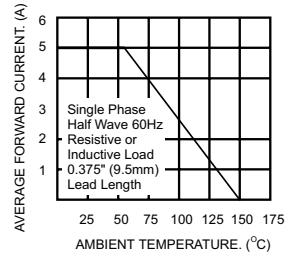


FIG.3- TYPICAL REVERSE CHARACTERISTICS

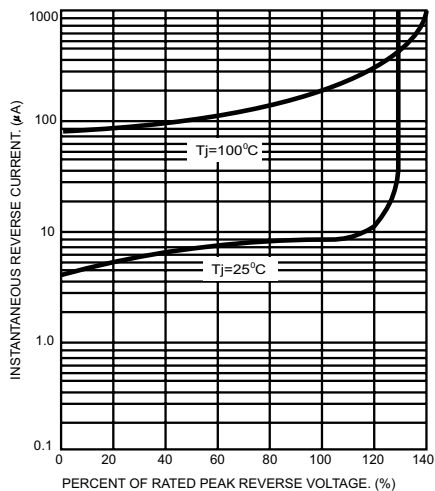


FIG.5- TYPICAL FORWARD CHARACTERISTICS

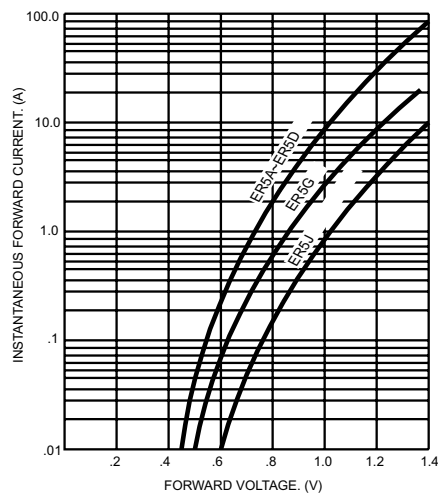


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

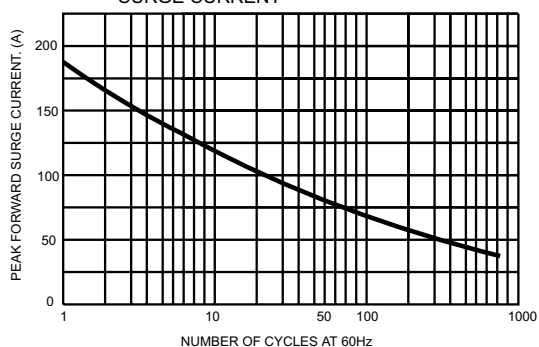
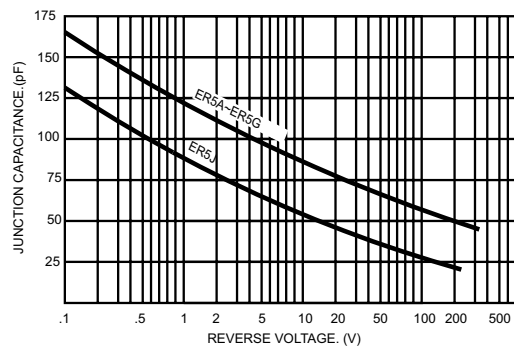


FIG.6- TYPICAL JUNCTION CAPACITANCE





## 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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