

POWER SCHOTTKY RECTIFIERS

60A Pk, Up to 45V

USD3030S
USD3040S
USD3045S

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FEATURES

- Economical Convenient TO-3P Package
- Insulated Mounting Hole
- Can Be Clip Mounted
- Mechanically Rugged
- Low Thermal Resistance
- Extremely Low V_f

DESCRIPTION

The USD3030S Series, in the economical, convenient TO-3P package, is specifically designed for operation in power switching circuits to frequencies in excess of 100KHz. The very low forward voltage and low recovered charge translates to extremely high efficiency making them particularly suited for low voltage switching type power supplies.

ABSOLUTE MAXIMUM RATINGS

	USD3030S	USD3040S	USD3045S
Working Peak Reverse Voltage	30V	40V	45V
D.C. Blocking Voltage	30V	40V	45V
Peak Repetitive Surge Voltage	36V	48V	54V
Maximum Average D.C. Output Current @ $T_C = 115^\circ\text{C}$	30A	30A	30A
Non-Repetitive Sinusoidal Surge Current, 0.3ms	450A	450A	450A
Peak Reverse Transient Current	2A	2A	2A
Thermal Resistance Junction to Case	1.5°C/W	1.5°C/W	1.5°C/W
Thermal Resistance Junction to Ambient	40°C/W	40°C/W	40°C/W
Operating and Storage Temperature Range	-55°C to +150°C	-55°C to +150°C	-55°C to +150°C

ELECTRICAL SPECIFICATIONS

Type	V_{RWM}	Maximum Forward Voltage (V_f)		Maximum Reverse Current (I_R) @ V_{RWM}		Maximum Capacitance C_T at $V_R = 5.0V$	Voltage Rate of Change (dv/dt)
		$T_J = 25^\circ\text{C}$	$T_J = 125^\circ\text{C}$	$T_J = 25^\circ\text{C}$	$T_J = 125^\circ\text{C}$		
USD3030S	30V	.75 @ 30A	.70 @ 30A	20mA	50mA	2000pF	1000V/ μs
USD3040S	40V	.93 @ 60A	.85 @ 60A				
USD3045S	45V						

MECHANICAL SPECIFICATIONS

1. Mounting surface common to cathode

INCHES		
DIM.	MIN.	MAX.
A	.620	.640
B	.825	.845
C	.060	.080
D	.780	.800
E	.087	.102
F	.019	.029
G	.150	.170
H	.212	.222
J	.140	.144
K	.042	.052
L	.074	.084
N	.430 Nom.	

TO-3P

