

SPD 605 thru SPD 630

6 AMP

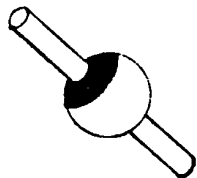
ULTRA FAST RECOVERY RECTIFIER

50-300 VOLTS



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CASE STYLE "F"



FEATURES

- ULTRA FAST RECOVERY 40 NSEC MAX.
- PIV TO 300 VOLTS
- VOIDLESS CONSTRUCTION
- FOR HIGH EFFICIENCY APPLICATIONS
- HERMETICALLY SEALED
- LOW LEAKAGE
- LOW COST
- BETTER THAN OR EQUAL TO UNITRODE UES 1304, 1305

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RM} (rep)$ V_R	50 100 200 300	Volts
RMS Reverse Voltage	V_r	35 70 140 210	Volts
Average 1/2 Wave Rectified Forward Current (Resistive Load, 60 Hz, $T_C = 25^\circ C$)	I_O	6	Amp
Peak Repetitive Forward Current ($T_C = 55^\circ C$)	$I_{FM} (rep)$	24	Amp
Peak Surge Current ($T_C = 55^\circ C$, Superimposed on Rated Current at Rated Voltage)	$I_{FM} (surge)$	125	Amp
Operating and Storage Temperature	T_J, T_{stg}	-65 to +175	$^\circ C$

THERMAL CHARACTERISTICS

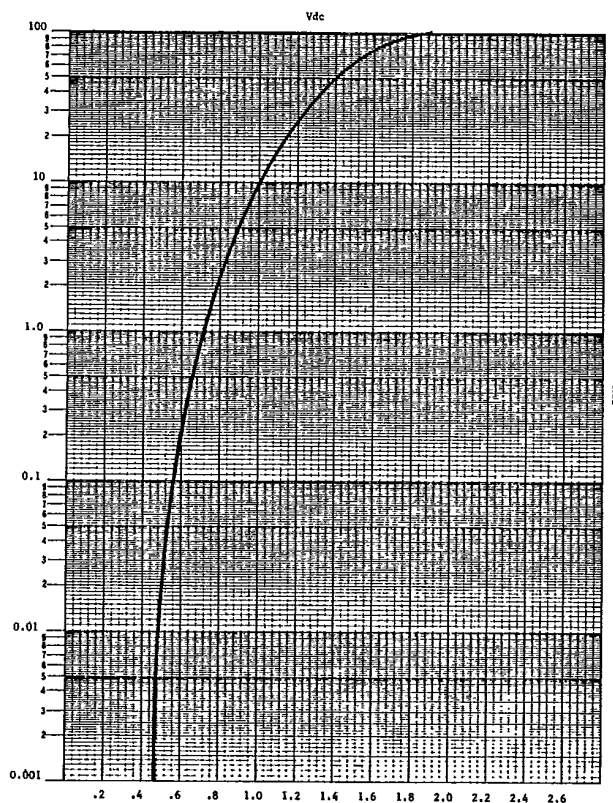
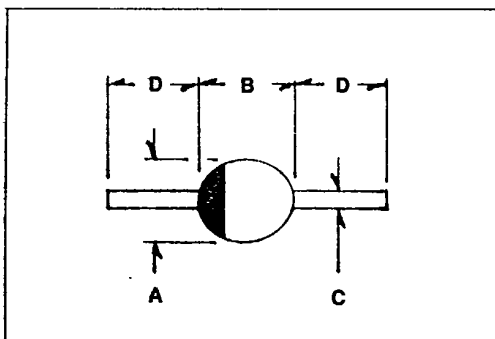
Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient (typical printed circuit board mounting) $L = 3/8''$	$R_{\theta JC}$	20	$^\circ C/W$

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Average Forward Voltage Drop (I_O (Max), rated V_F , 60 Hz, $T_C = 55^\circ\text{C}$)	$V_{F(AV)}$	.75	Volts
Max Instantaneous Forward Voltage Drop ($I_F = 6$ Amps, $T_J = 25^\circ\text{C}$)	V_F	.95	Volts
Max Full Cycle Average Reverse Current (I_O (max), rated V_R , 60 Hz, $T_C = 100^\circ\text{C}$)	$I_{R(AV)}$	500	μA
Max DC Reverse Current. (Rated V_R , $T_C = 25^\circ\text{C}$)	I_R	20	μA

REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $t_{rr} = 250\text{ma}$)	t_{rr}	-	-	40	ns

TYPICAL OPERATING CURVES**PHYSICAL DIMENSIONS**

SPD 605 thru SPD 630

KEY TO DIMENSIONS:

(Inches)

- A = .180 MAX.
 B = .220 - .240
 C = .038 - .042
 D = 1.00 MIN.

SSDII SOLID STATE DEVICES, INC.