

SPD205 THRU SPD230

2 AMP

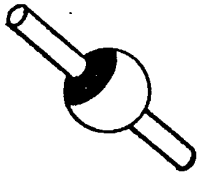
ULTRA FAST RECOVERY RECTIFIER

50-300 VOLTS



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CASE STYLE "E"



FEATURES

- ULTRA FAST RECOVERY 20 NSEC MAX
- PIV TO 300 VOLTS
- LOW REVERSE LEAKAGE
- HERMETICALLY SEALED
- SINGLE CHIP CONSTRUCTION
- FOR HIGH EFFICIENCY APPLICATIONS
- BETTER THAN OR EQUAL TO UNITRODE
UES 1001-1003 AND UES 1104, 1105

MAXIMUM RATINGS

Rating		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SPD205	$V_{RM} (rep)$		Volts
	SPD210	V_R	50	
	SPD220		100	
	SPD230		200	
			300	
RMS Reverse Voltage	SPD205	V_r	35	Volts
	SPD210		70	
	SPD220		140	
	SPD230		210	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_A = 55^\circ C$)		I_O	2	Amps
Peak Repetitive Forward Current ($T_A = 55^\circ C$, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)		$I_{FM} (rep)$	8	Amps
Peak Surge Current ($T_A = 55^\circ C$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)		$I_{FM} (surge)$	50	Amps
Operating and Storage Temperature		T_J, T_{stg}	-65 to +175	$^\circ C$

THERMAL CHARACTERISTICS

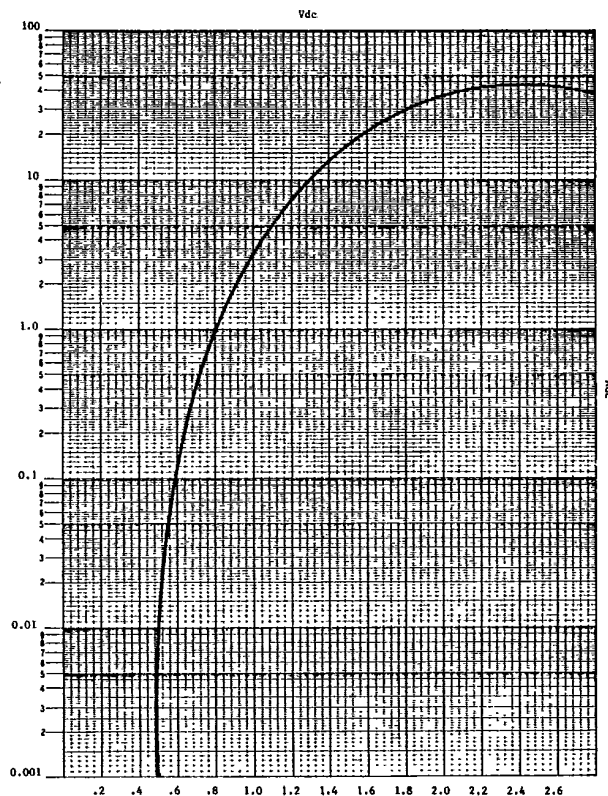
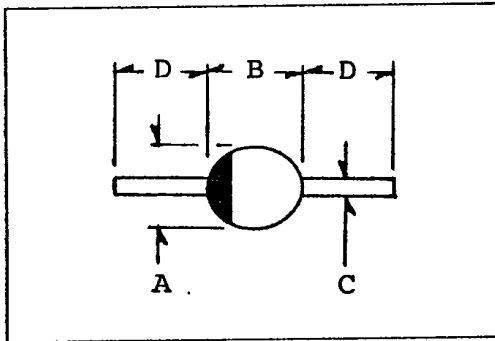
Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Leads, $L = 3/8"$	$R_{\theta JL}$	38	$^\circ C/W$

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle (I_O (Max), 60 Hz, Square Wave, $T_A = 55^\circ\text{C}$)	$V_{F(AV)}$	.95	Vdc
Max Instantaneous Forward Voltage Drop ($I_F = 2\text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.0	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated V_R , 60Hz, Square Wave, $T_A = 100^\circ\text{C}$)	$I_{R(AV)}$	200	$\mu\text{A dc}$
Max Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$)	I_R	10	$\mu\text{A dc}$
Max Junction Capacitance ($V_R = \quad\quad\quad$ V, $T_A = 25^\circ\text{C}$)	C_J		pf

REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{ma}$)	t_{rr}	--	--	20	ns

TYPICAL OPERATING CURVES**PHYSICAL DIMENSIONS****KEY TO DIMENSIONS:**

(Inches)

- A = .140 MAX.
 B = .210 - .230
 C = .028 - .032
 D = 1.00 MIN.

SSD II SOLID STATE DEVICES, INC.