Microsemi

SANTA ANA DIVISION

SM2337

1200 VOLT
ULTRA FAST RECOVERY RECTIFIER

PRODUCT PREVIEW

DESCRIPTION

High Voltage, Low Leakage, Ultra Fast Rectifier

IMPORTANT: For the most current data, consult *MICROSEMI*'s website: **http://www.microsemi.com**

KEY FEATURES

- Available in axial leaded package
- Ultra Fast Recovery Time
- High Voltage
- Metallurgical bonding
- Voidless hermetically sealed glass package
- TX, TXV and space level screening available Per Internal Process Specification and SM2337TX, SM2337TXV per PS7.00 SP2337US per PS15.85

APPLICATIONS/BENEFITS

- TWT design
- Reverse Recovery less than 20 nano seconds.
- C_j less than 20pf
- Low VF
- 60 Amp Surge

MAXIMUM RATINGS @ 25°C (unless otherwise specified)

Description	Symbol	Min.	Max.	Unit
Minimum Breakdown Voltage	V_{BR}	1300		Volts
Working Peak Voltage	V_{rwm}		1200	Volts
Surge Current	I_{FSM}		60	Amps
Average Operating Current	I_O		2	Amps
Thermal Resistance	$R_{\theta jc}$		10	°C/W
Thermal Impedance	$Z_{\theta jx}$		1.2	°C/W
Storage and Junction Temperature Range	T_{stg}, T_j		-65 to +175	°C

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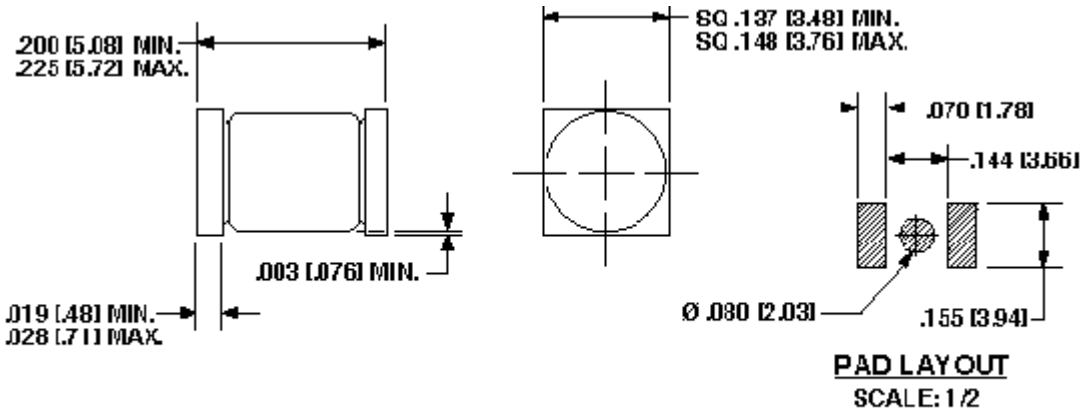
ELECTRICAL PARAMETERS @ 25°C (unless otherwise specified)

Description	Symbol	Conditions	Min	Max	Unit
Reverse (Leakage)	I_{R1}	V_R= 1200 V_{dc}, T_A= 25°C		2.0	µA
Reverse (Leakage)	I_{R2}	V_R= 1200 V, T_A= 100°C		75	µA
Forward Voltage	V_{F1}	I_F= 1.0A T_A= 25°C, tp = 10mSec.		2.5	Volts
Forward Voltage	V_{F2}	I_F = 2.0A, T_A = 25°C, tp = 10mSec.		3.0	Volts
Breakdown Voltage	V_{BR}	I_{BR}= 50µA, T_A= 25°C	1300		Volts
Forward Voltage	V_{F2}	I_F = 1.0A, T_A = -55°C		3.0	Volts
Breakdown Voltage	V_{BR2}	I_{BR} = 50µA, T_A = -55°C	1200		Volts
Reverse Recovery Time	t_{rr}	I_F = 0.5A, I_R = 1.0A, I_{rm}(REC) = 0.25A		20	nsec.
Thermal Impedance	$Z_{\theta jx}$	I_M = 10mA, T_{md} = 100µSec.(max), I_H = 5A(min), T_H = 10mSec.		1.2	°C/W
Thermal Resistance	$R_{\theta jec}$	I_M = 10mA, T_{md} = 100µSec.(max), I_H = 2A(min), T_H = Thermal Equilibrium		10	°C/W
Forward Surge	IFSM	8.3mSec pulse, Half Sine Wave Superimposed on Io, 1 Pulse per minute		60	Amps
Capacitance	C_j	V_R = 10V, f = 1Mhz, V_{sig} = 50mV (p-p)		20	pf

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E-MELF (SANTA ANA)



NOTE: DIMENSIONS IN [ ] = MILLIMETERS

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