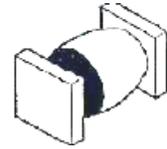


**SURFACE MOUNT ULTRAFAST RECTIFIER  
(MELF)**



**DESCRIPTION: 1200 VOLT, 1.0 AMP, 40 NS RECTIFIER IN A SURFACE MOUNT (MELF) PACKAGE**

**MAXIMUM RATINGS**

ALL RATINGS ARE AT  $T_A=25^{\circ}\text{C}$  UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN	MAX	UNITS
BREAKDOWN VOLTAGE	$V_{BR}$	1200		Volts
PEAK INVERSE VOLTAGE	PIV		900	Volts
MAXIMUM AVERAGE DC OUTPUT CURRENT	$I_o$		1.0	Amps
PEAK SINGLE CYCLE SURGE CURRENT ( $t_p=8.3$ ms, half sine wave)	$I_{FSM}$		40	Amps
MAXIMUM THERMAL RESISTANCE (Junction to end cap)	$R_{\theta JC}$		10	$^{\circ}\text{C}/\text{W}$
THERMAL IMPEDANCE	$Z_{\theta JX}$		2.5	$^{\circ}\text{C}/\text{W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	$T_{op,sig}$	-65	+175	$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS**

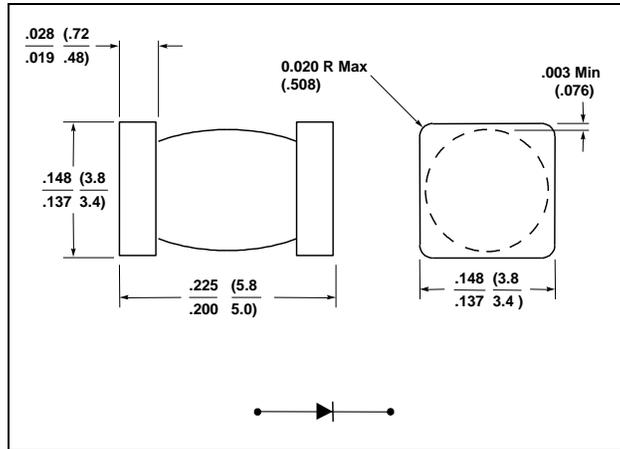
CHARACTERISTIC	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS
FORWARD VOLTAGE DROP 300 $\mu\text{s}$ pulse	$I_F=0.1$ A	$V_F$			1.05	Volts
	$I_F=0.2$ A	$V_F$			1.20	Volts
FORWARD VOLTAGE DROP 300 $\mu\text{s}$ pulse	$T_A=-55^{\circ}\text{C}$ , $I_F=1.0$ A	$V_F$			3.2	Volts
	$T_J=+100^{\circ}\text{C}$ , $I_F=0.1$ A	$V_F$		0.68	0.75	Volts
REVERSE CURRENT @ 900V	$T_A=25^{\circ}\text{C}$	$I_R$			2.0	$\mu\text{A}$
	$T_A=100^{\circ}\text{C}$	$I_R$		20	30	$\mu\text{A}$
BREAKDOWN VOLTAGE	$I_{BR}=50$ $\mu\text{A}$	$V_{BR}$	1200			Volts
BREAKDOWN VOLTAGE	$I_{BR}=50$ $\mu\text{A}$ , $T_A=-55^{\circ}\text{C}$	$V_{BR}$	1100			Volts
REVERSE RECOVERY TIME	$I_F=500\text{mA}$ , $I_R=1\text{A}$ , $I_{RR}=250\text{mA}$	$t_{rr}$ @ $25^{\circ}\text{C}$		35	40	Nsec
		$t_{rr}$ @ $100^{\circ}\text{C}$		80	90	Nsec
JUNCTION CAPACITANCE	$f=1\text{MHz}$ , $V_R=10\text{V}$ , $T_A=25^{\circ}\text{C}$	$C_J$		25	30	pF

**SENSITRON**

**TECHNICAL DATA**

**DATASHEET 5182, REV F.1**

**PACKAGE DIMENSIONS (inches/mm)**



**MELF-B**

**Note:** The cathode side is marked with a dark colored band on one side of the diode body.

**PART ORDERING INFORMATION**

**SRS3120HEURA XX**

Part Number

**Screening Level (blank is no screening):**

Suffix	Screened in Accordance with:
blank	No screening level
SX	MIL-PRF-19500, TX Level Screening and QCI
SV	MIL-PRF-19500, TXV Level Screening and QCI
SS	MIL-PRF-19500, S Level Screening and QCI

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