

SCHOTTKY BARRIER DIODE
FEATURES

- Surface Mount device
- Low Reverse voltage leakage current
- Glass passivated junction
- High forward surge current capability
- Low forward voltage drop


MELF
MECHANICAL DATA

- Case: MELF
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.25 grams (approximate)


MAXIMUM RATINGS ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Current	I_F	1	A
Non-Repetitive Peak Forward Surge Current @ $t = 8.3 \text{ ms}$	I_{FSM}	9	A
Power Dissipation	P_D	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	200	$^{\circ}\text{C/W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			0.55	V	$I_F = 1\text{A}$
				0.875		$I_F = 3\text{A}$
Reverse voltage	V_R	30			V	$I_R = 1\text{mA}$
Reverse voltage leakage current	I_R			1	mA	$V_R = 30\text{V}$
Diode capacitance	C_D		120		pF	$V_R = 4\text{V}, f = 1\text{MHz}$

SCHOTTKY BARRIER DIODE

Typical Characteristics

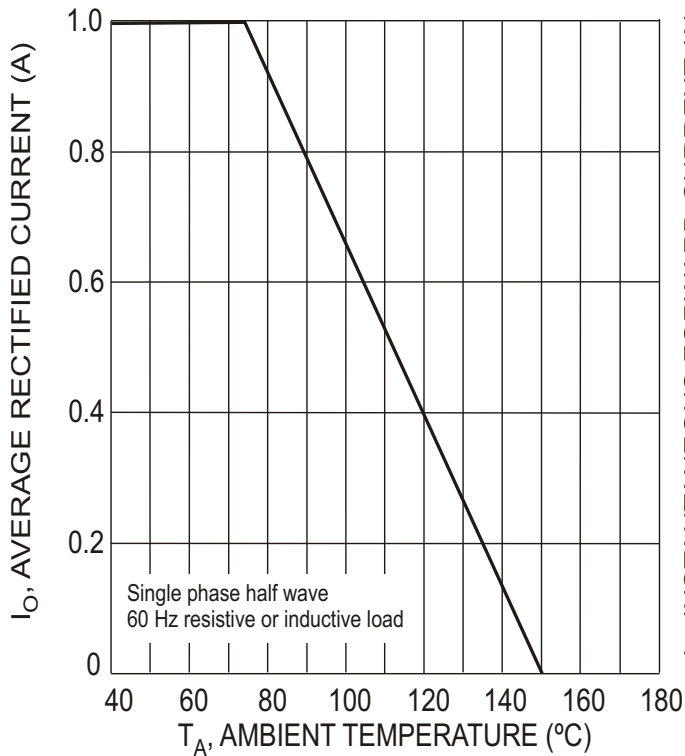


Fig. 1 Forward Current Derating Curve

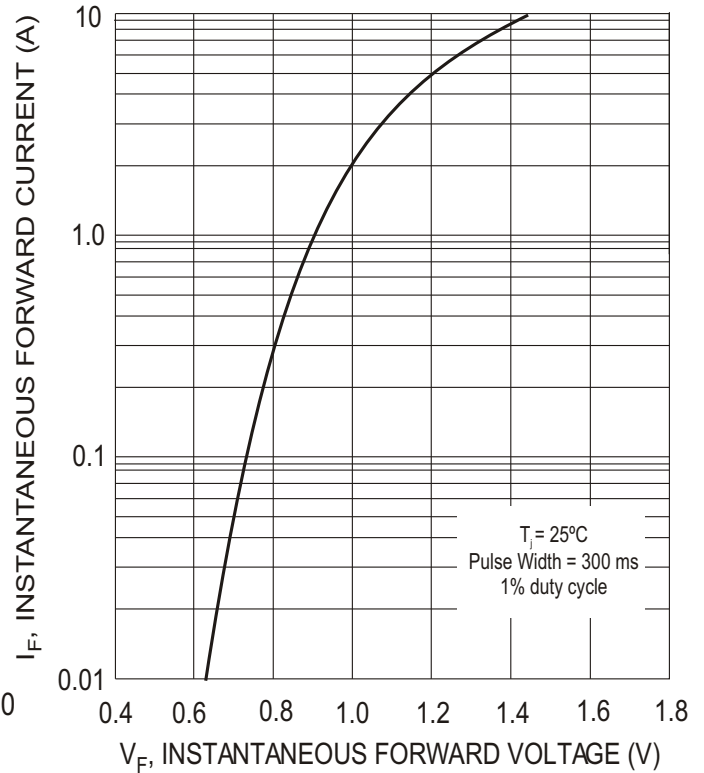


Fig. 2 Typical Forward Characteristics

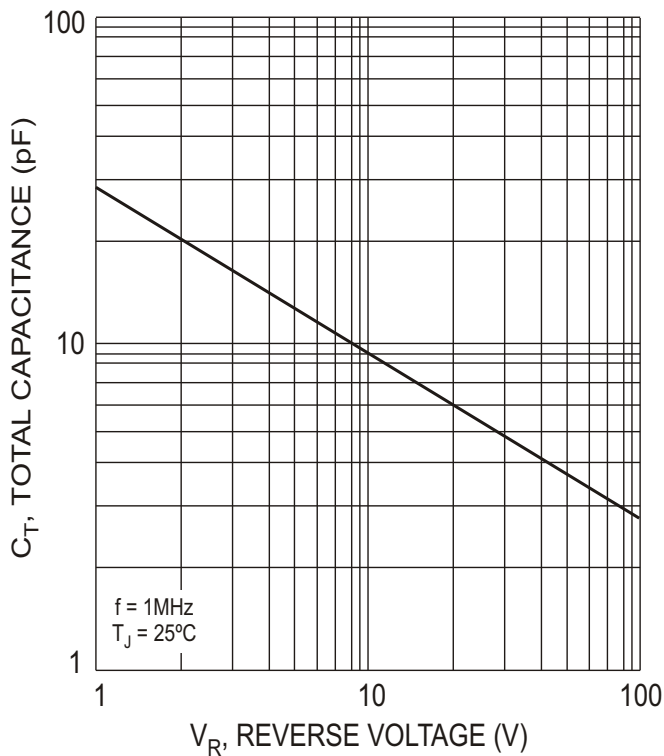


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

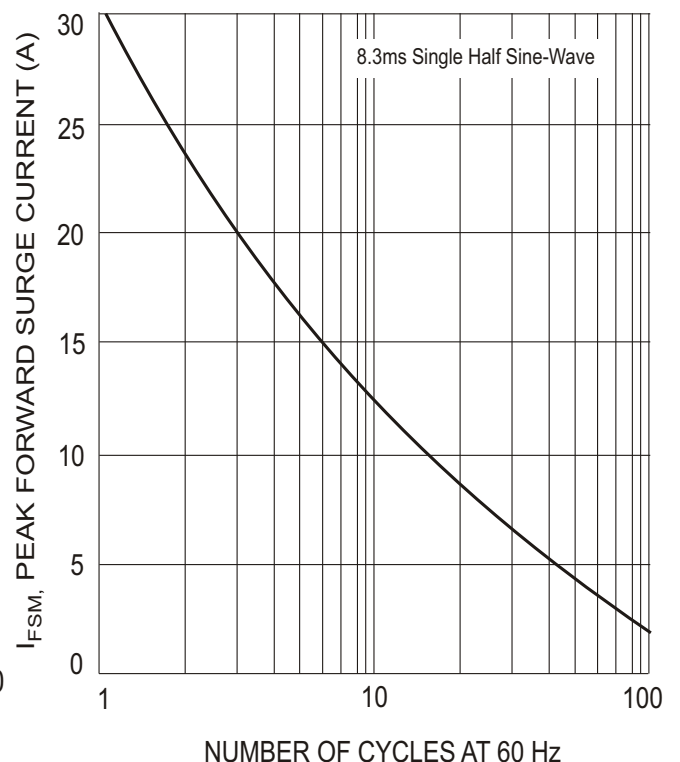
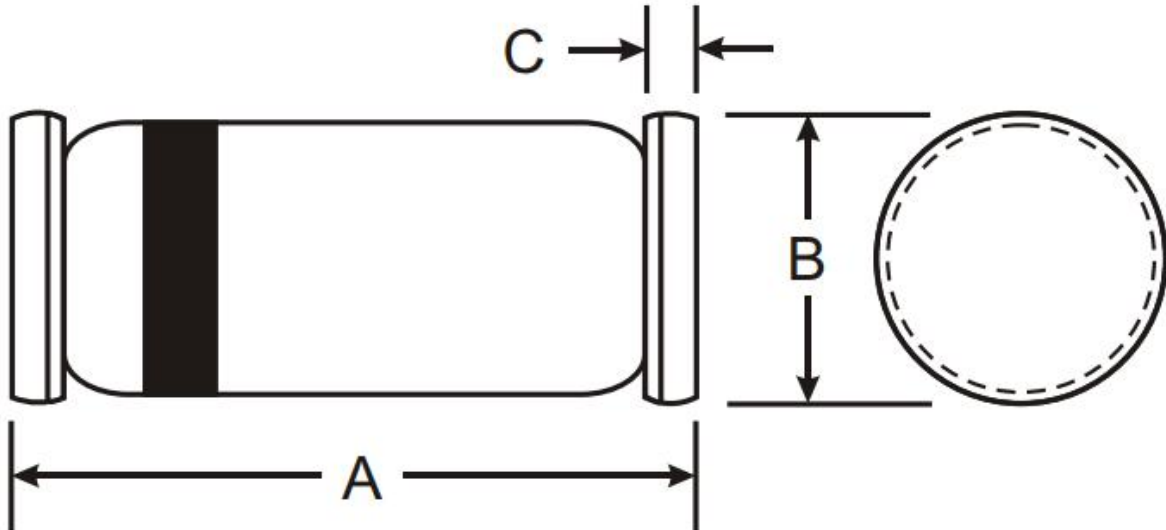
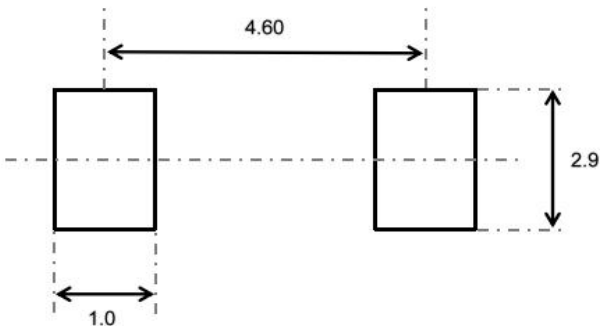


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

SCHOTTKY BARRIER DIODE
MELF Package Outline Dimensions


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.70	5.20	0.185	0.205
B	2.40	2.67	0.095	0.105
C	0.46	0.56	0.018	0.022

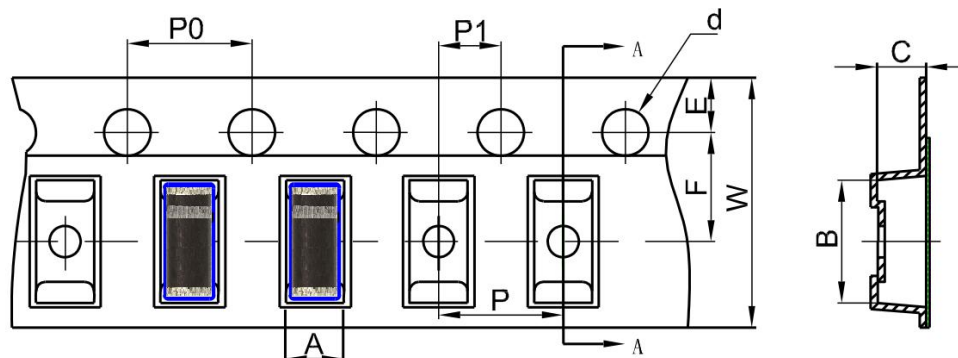
MELF Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SCHOTTKY BARRIER DIODE

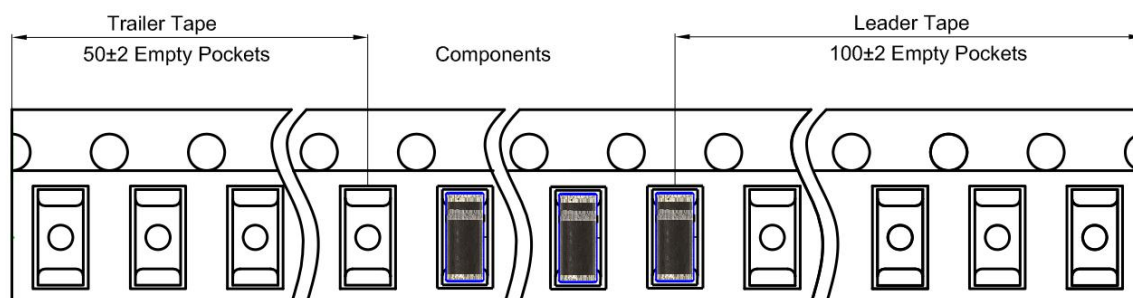
MELF Tape and Reel

MELF Embossed Carrier Tape

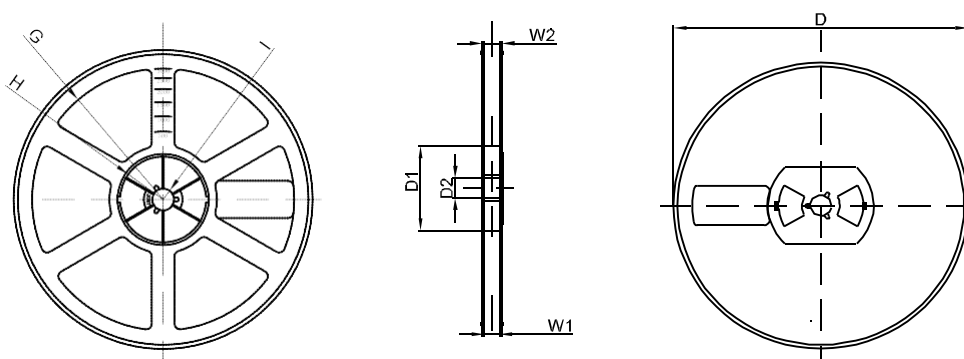


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
MELF	2.75	5.25	2.70	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

MELF Tape Leader and Trailer



MELF Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1