HKT Hottech Electronic

DL4002

GENERAL PURPOSE RECTIFIER DIODE

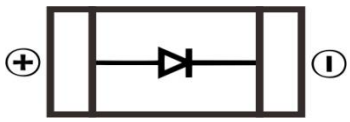
FEATURES

- 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°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
DC Blocking Reverse Voltage	V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Maximum Average Forward Rectified Current	I_F	1	A
Non-Repetitive Peak Forward Surge Current @t@=8.3ms	I_{FSM}	30	A
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	50	°C/W
Reverse Recovery Time(@I_F=0.5A, I_R=1.0A, I_{RR}=0.25A)	t_{rr}	2.5	uS
Junction Temperature	T_J	-55 ~+150	°C
Storage Temperature	T_{STG}	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			1.1	V	I_F=1A
Reverse current	I_R			5	uA	V_R=100V
Diode capacitance	C_D		15		pF	V_R=4V_{DC},f=1MHz

GENERAL PURPOSE RECTIFIER DIODE

Typical Characteristics

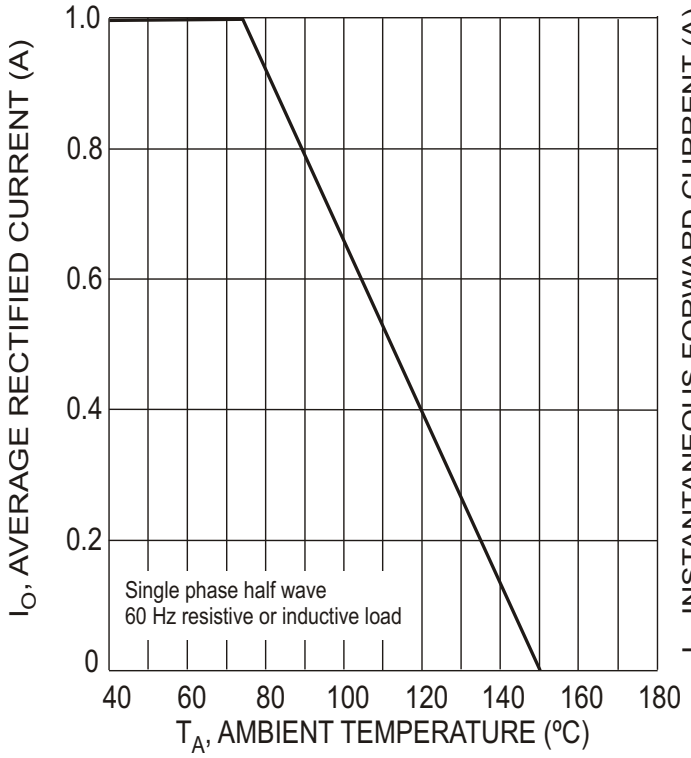


Fig. 1 Forward Current Derating Curve

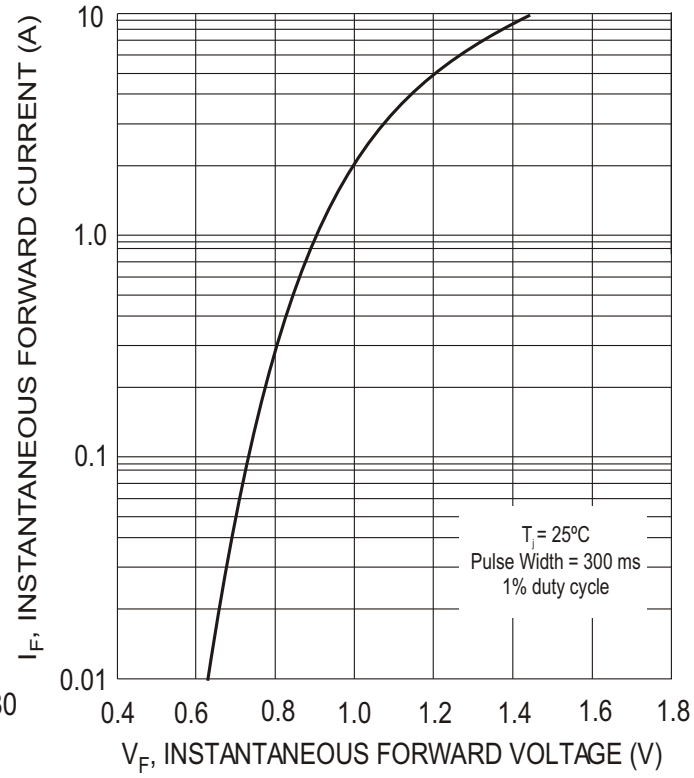


Fig. 2 Typical Forward Characteristics

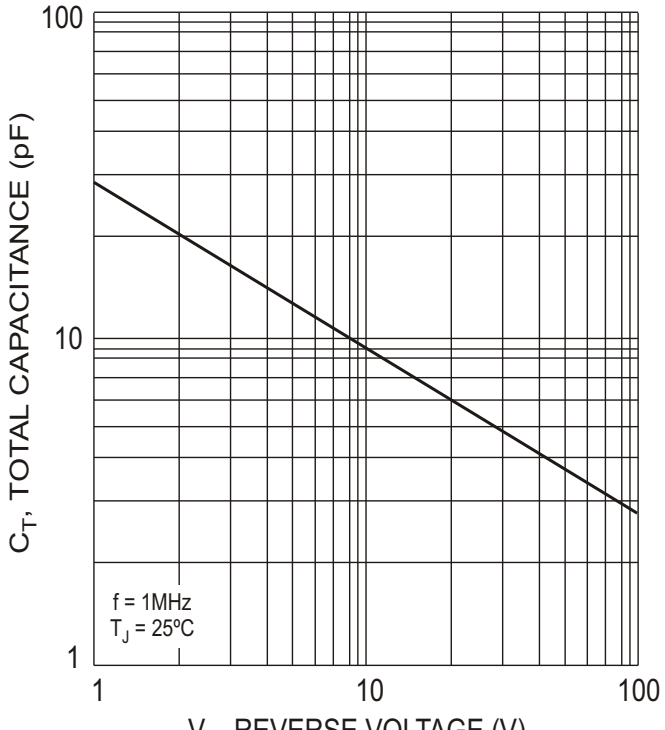


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

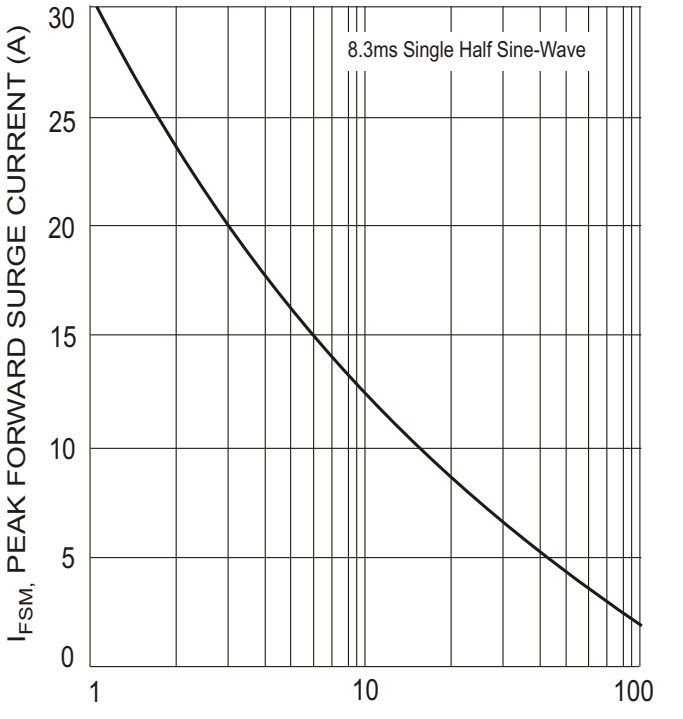
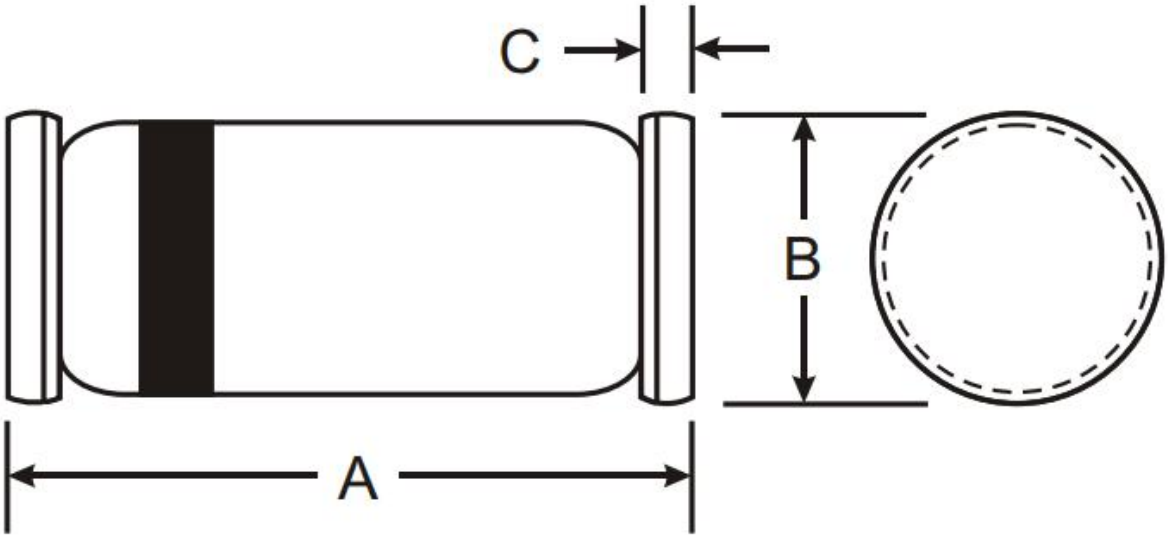


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

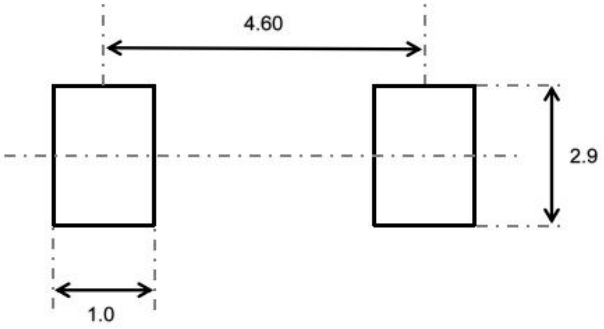
GENERAL PURPOSE RECTIFIER DIODE

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

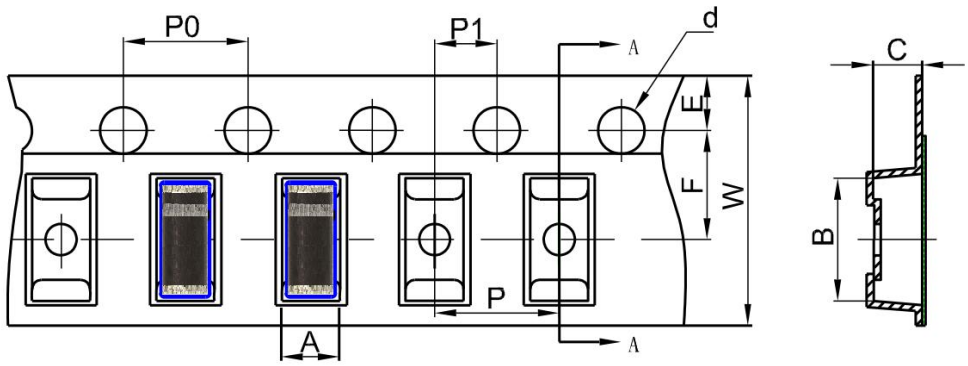
2.General tolerance: ±0.05mm

3.The pad layout is for reference purposes only

GENERAL PURPOSE RECTIFIER DIODE

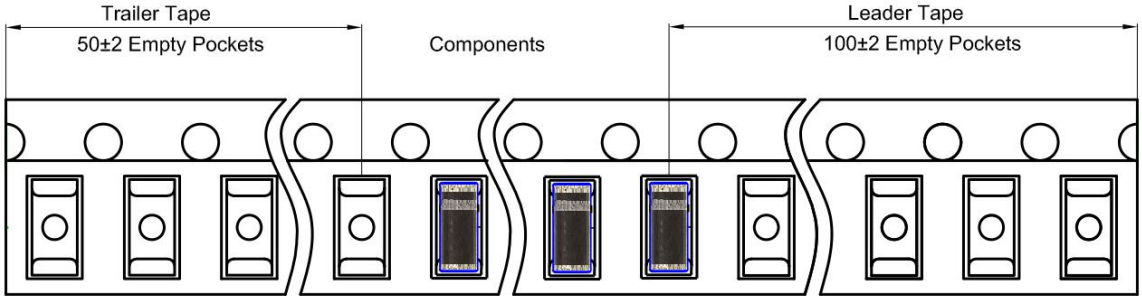
MELF Tape and Reel

MELF Embossed Carrier Tape

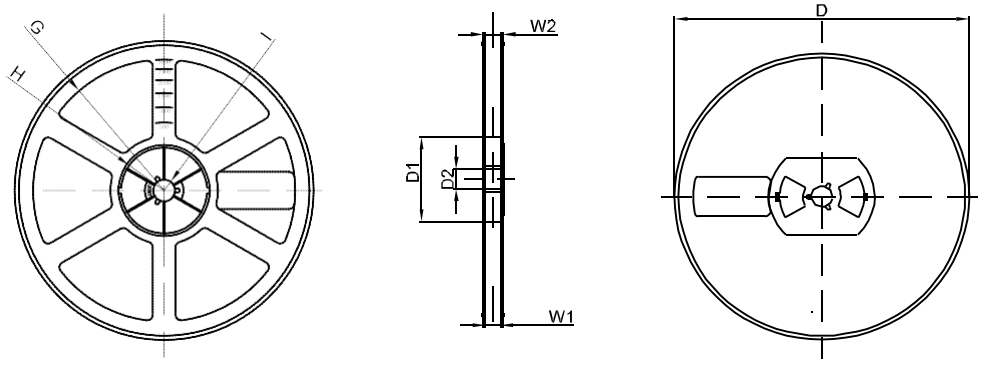


	DIMENSIONS ARE IN MILLIMETER									
TYPE	A	B	C	d	E	F	P0	P	P1	W
MELF	2.75	5.25	2.70	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

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