Micro Commercial Components
20736 Marilla Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

DL4446

500mW 75Volt High-speed Diode

Features

- Small hermetically sealed glass SMD package
- High switching speed: max. 4ns
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

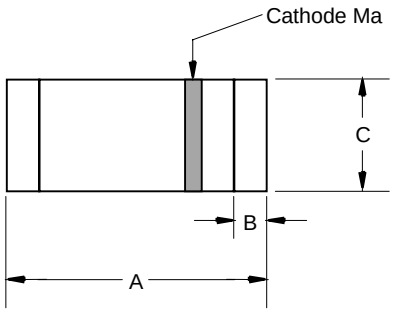
- Storage Temperature: -65℃ to +200℃

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V_R	75V	
Repetitive Peak Reverse Voltage	V_{RRM}	75V	
Continuous Forward Current	I_F	200mA	See Fig.1; note 2
Repetitive Peak Forward Current	I_{FRM}	450mA	
Power Dissipation	P_{TOT}	500mW	
Junction Temperature	T_J	200℃	
Peak Forward Surge Current (square wave; T_j=25℃ prior to surge; see Fig.3)	I_{FSM}	4A 1A 0.5A	t=1μs t=1ms t=1s
Maximum Instantaneous Forward Voltage	V_F	1.0V	I_{FM} = 20mA; See Fig.2
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 50μA	V_R=20Volts T_J = 25℃ T_J = 150℃ See Fig.4
Diode Capacitance	C_d	4pF	Measured at 1.0MHz, V_R=0V, see Fig.5
Reverse Recovery Time	T_{rr}	4nS	Note 3
Thermal Resistance	R_{thj-tp}	300K/W	Junction to tie-point
Thermal Resistance	R_{thj-a}	350K/W	Junction to ambient

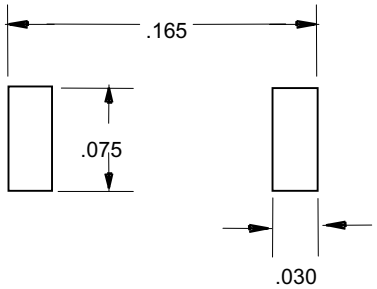
Note:1.Lead in Glass Exemption Applied, see EU Directive Annex 5.
2.Device mounted on an FR4 printed-circuit board
3.When switched from I_F=10mA to I_R=60mA; R_L=100Ω; measured at I_R=1mA;see Fig.7

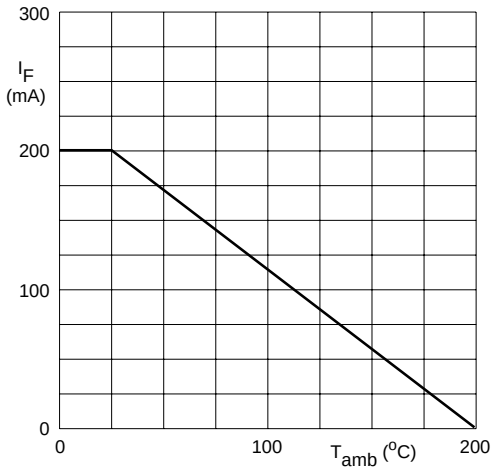
MINIMELF



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.130	.146	3.30	3.70	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	∅

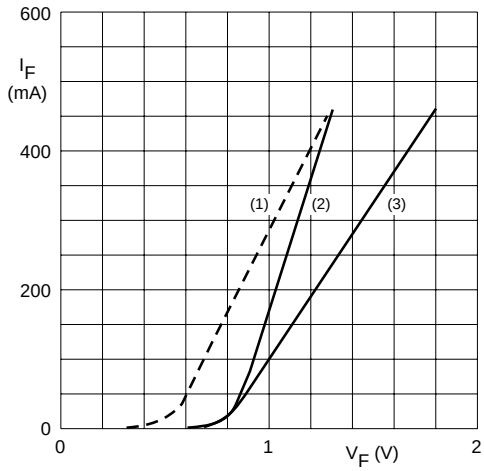
SUGGESTED SOLDER PAD LAYOUT





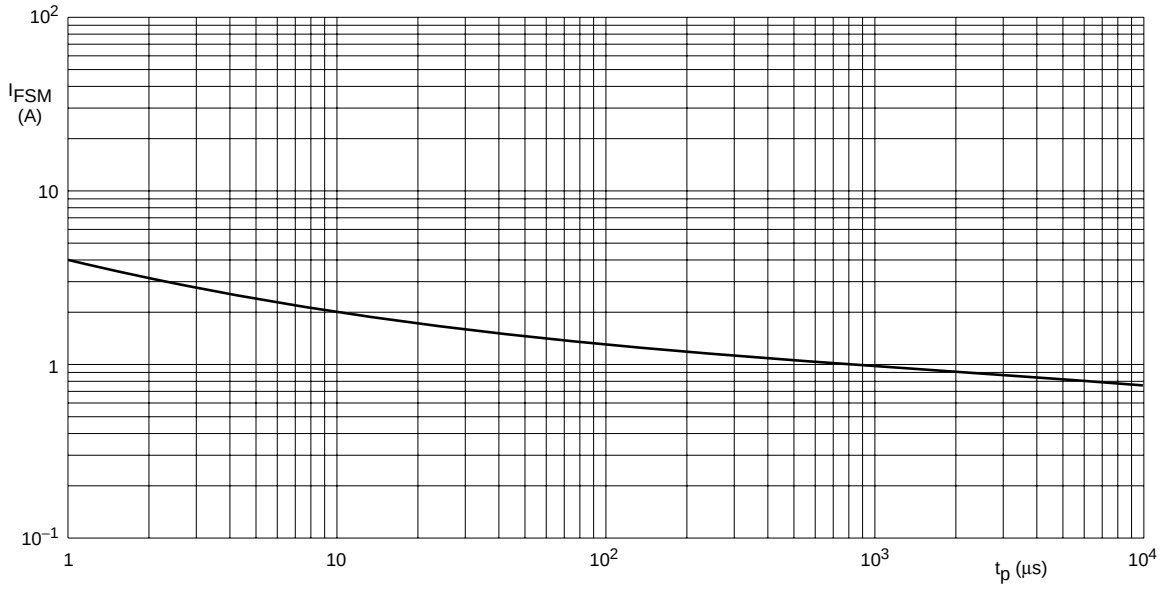
Device mounted on an FR4 printed-circuit board.

Fig.1 Maximum permissible continuous forward current as a function of ambient temperature.



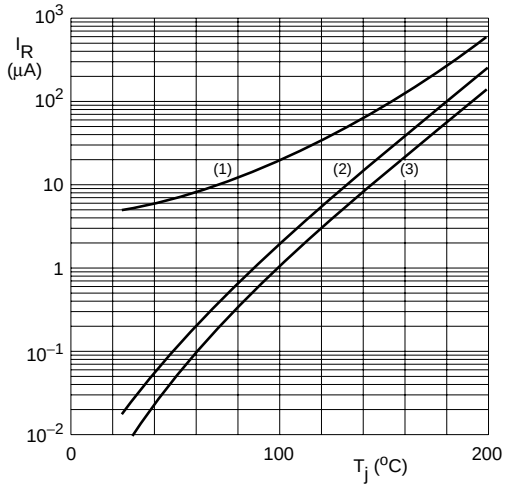
(1) T_j = 175 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

Fig.2 Forward current as a function of forward voltage.



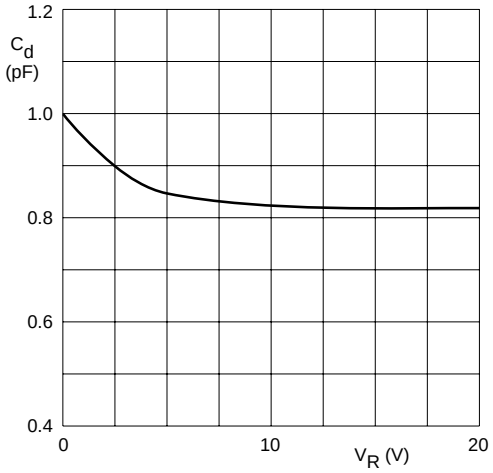
Based on square wave currents.
T_j = 25 °C prior to surge.

Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.



(1) V_R = 75 V; maximum values.
(2) V_R = 75 V; typical values.
(3) V_R = 20 V; typical values.

Fig.4 Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

Fig.5 Diode capacitance as a function of reverse voltage; typical values.

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

IMPORTANT NOTICE
Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . ***Micro Commercial Components Corp .*** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold ***Micro Commercial Components Corp .*** and all the companies whose products are represented on our website, harmless against all damages.
LIFE SUPPORT
MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.
CUSTOMER AWARENESS
Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.