

### General Description

MURF1640CTY device optimized for recovery characteristics to improve efficiency in power supply applications.

### Features

- Common Cathode
- Super fast switching for high efficiency
- High forward surge current capability
- RoHS Compliant

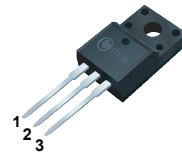
### Product Summary

V <sub>RRM</sub>	V <sub>F</sub>	I <sub>F(AV)</sub>
400V	1.4V	16A

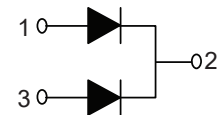
### Applications

- Switched Mode Power Supplies (SMPS)
- inverter

### TO-220F Pin Configuration



TO-220F  
(MURF1640CTY)



- 1. Anode
- 2. Common Cathode
- 3. Anode

### Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	400	V
I <sub>F(AV)</sub>	Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	8 (Per Leg) 16 (Total)	A
T <sub>RR</sub>	Reverse Recovery Time(I <sub>F</sub> =0.5A ,I <sub>R</sub> =1A ,I <sub>REC</sub> =0.25A)	35	nS
I <sub>FSM</sub>	Forward Peak Surge Current(Rated Load 8.3ms Half Mssine Wave-According to JEDEC Method)	120X2	A
dv/dt	Voltage rate of change (Rated VR)	10000	V/uS
I <sub>RRM</sub>	Peak Repetitive Reverse Surge Current (2uS,1Khz)	0.5	A
T <sub>J</sub>	Operating Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-40 to 150	°C

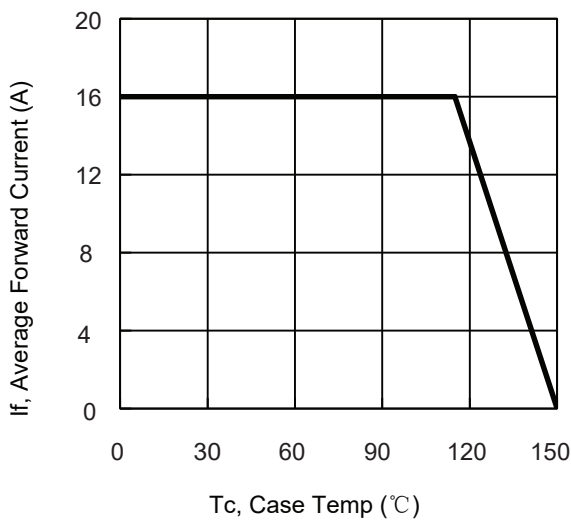
### Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case(Per Leg)	4	---	°C/W

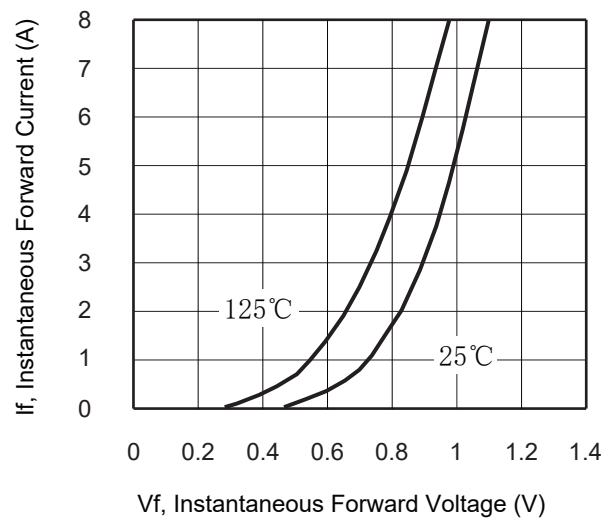
### Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$V_F$	Forward Voltage Drop per diode	$I_F=10A, T_C=25^\circ C$	---	1.1	1.4	V
		$I_F=10A, T_C=125^\circ C$	---	---	1.25	
$I_R$	Reverse Leakage Current per diode	$V_R=400V, T_C=25^\circ C$	---	---	0.01	mA
		$V_R=400V, T_C=125^\circ C$	---	---	0.1	

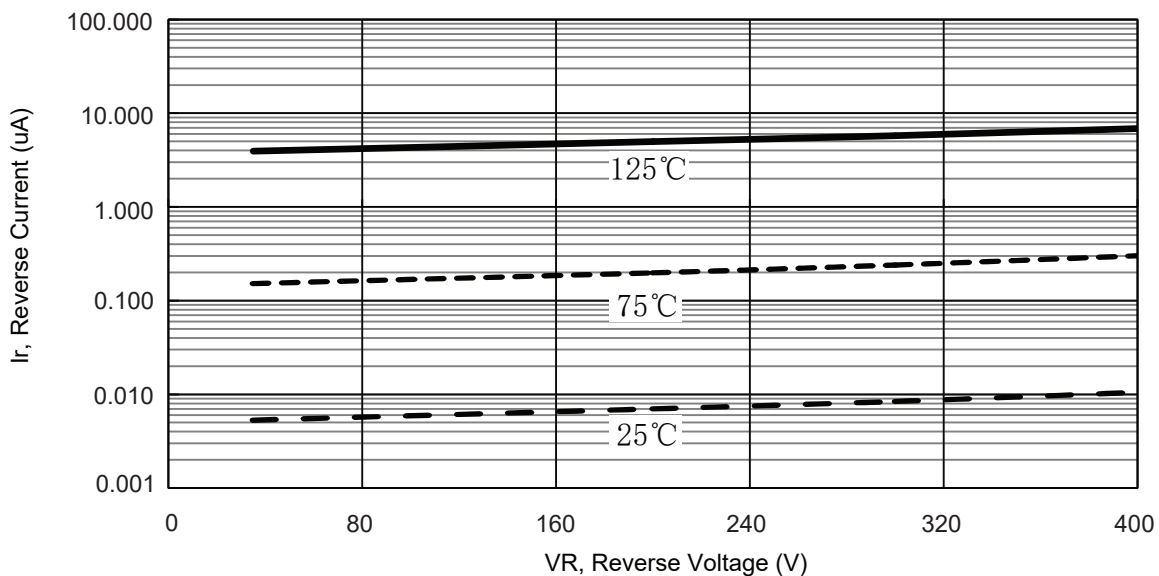
### Characteristic Curves



**Current derating curve, per element**



**The forward voltage and forward current curve**



**The reverse leak current and the reverse voltage (single-device) curve**

This product has been designed and qualified for the consumer market.  
 Cmos assumes no liability for customers' product design or applications.  
 Cmos reserves the right to improve product design, functions and reliability without notice. Please refer to the latest version of specification.