

CRSH16D-40FP  
CRSH16D-60FP  
CRSH16D-100FP

DUAL, COMMON CATHODE  
SILICON SCHOTTKY RECTIFIERS  
16 AMP, 400 THRU 100 VOLT



TO-220FP CASE



www.centrasemi.com

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CRSH16D-40FP series devices are dual silicon Schottky rectifiers designed for fast switching applications requiring a low forward voltage drop.

#### MARKING: FULL PART NUMBER

#### FEATURES:

- High reliability
- High current capability
- UL flammability classification 94V-O
- Low power loss, high efficiency
- Low forward voltage
- High surge capacity
- High voltage

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

	SYMBOL	CRSH16D -40FP	CRSH16D -60FP	CRSH16D -100FP	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	60	100	V
DC Blocking Voltage	$V_R$	40	60	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	26	42	80	V
Average Forward Current ( $T_C=90^\circ\text{C}$ )	$I_O$		16		A
Peak Forward Surge Current ( $t_p=8.3\text{ms}$ )	$I_{FSM}$		150		A
Critical Rate of Rise of Reverse Voltage	$dv/dt$		10,000		V/ $\mu\text{s}$
Operating and Storage Junction Temperature	$T_J, T_{stg}$		-65 to +150		$^\circ\text{C}$
Typical Thermal Resistance	$\Theta_{JC}$		4.0		$^\circ\text{C/W}$
Typical Thermal Resistance	$\Theta_{JA}$		60		$^\circ\text{C/W}$

#### ELECTRICAL CHARACTERISTICS PER DIODE: ( $T_C=25^\circ\text{C}$ unless otherwise noted)

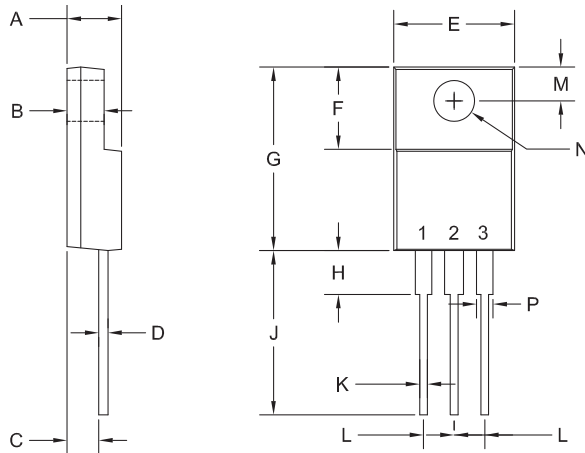
SYMBOL	TEST CONDITIONS	CRSH16D -40FP		CRSH16D -60FP		CRSH16D -100FP		UNITS
		TYP	MAX	TYP	MAX	TYP	MAX	
$I_R$	$V_R=\text{Rated } V_{RRM}$	-	200	-	200	-	200	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_C=125^\circ\text{C}$	-	15	-	15	-	15	mA
$V_F$	$I_F=8.0\text{A}$	-	0.65	-	0.75	-	0.85	V
$V_F$	$I_F=8.0\text{A}, T_C=125^\circ\text{C}$	-	0.57	-	0.65	-	0.75	V
$V_F$	$I_F=16\text{A}$	-	0.84	-	0.95	-	1.1	V
$V_F$	$I_F=16\text{A}, T_C=125^\circ\text{C}$	-	0.72	-	0.85	-	1.0	V
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$	300	-	300	-	300	-	pF

CRSH16D-40FP  
CRSH16D-60FP  
CRSH16D-100FP

DUAL, COMMON CATHODE  
SILICON SCHOTTKY RECTIFIERS  
16 AMP, 400 THRU 100 VOLT



# TO-220FP CASE - MECHANICAL OUTLINE

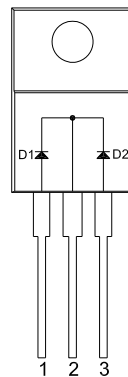


SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.165	0.202	4.20	5.12
B	0.090	0.130	2.30	3.30
C	0.098	0.122	2.50	3.10
D	-	0.031	-	0.80
E	0.382	0.418	9.70	10.63
F	0.238	0.276	6.06	7.00
G	0.583	0.640	14.80	16.25
H	-	0.161	-	4.10
J	0.506	0.543	12.85	13.80
K	0.020	0.031	0.50	0.79
L	0.100		2.54	
M	0.120	0.140	3.05	3.55
N (DIA)	0.116	0.134	2.95	3.40
P	0.039	0.058	1.00	1.47

TO-220FP (REV: R4)

R4

## PIN CONFIGURATION



### LEAD CODE:

- 1) Anode D1
- 2) Cathode D1, D2
- 3) Anode D2

### MARKING:

FULL PART NUMBER

R2 (20-May 2015)

CRSH16D-40FP  
CRSH16D-60FP  
CRSH16D-100FP

DUAL, COMMON CATHODE  
SILICON SCHOTTKY RECTIFIERS  
16 AMP, 400 THRU 100 VOLT



#### **SERVICES**

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

---

**LIMITATIONS AND DAMAGES DISCLAIMER:** In no event shall Central be liable for any collateral, indirect, punitive, incidental, consequential, or exemplary damages in connection with or arising out of a purchase order or contract or the use of products provided hereunder, regardless of whether Central has been advised of the possibility of such damages. Excluded damages shall include, but not be restricted to: cost of removal or reinstallation, rework, ancillary costs to the procurement of substitute products, loss of profits, loss of savings, loss of use, loss of data, or business interruption. No claim, suit, or action shall be brought against Central more than two (2) years after the related cause of action has occurred.

In no event shall Central's aggregate liability from any warranty, indemnity, or other obligation arising out of or in connection with a purchase order or contract, or any use of any Central product provided hereunder, exceed the total amount paid to Central for the specific products sold under a purchase order or contract with respect to which losses or damages are claimed. The existence of more than one (1) claim against the specific products sold to Buyer under a purchase order or contract shall not enlarge or extend this limit.

Buyer understands and agrees that the foregoing liability limitations are essential elements of a purchase order or contract and that in the absence of such limitations, the material and economic terms of the purchase order or contract would be substantially different.

R2 (20-May 2015)