

RoHS & REACH compliant

Hyperfast Rectifiers ideal for Power Factor Correction (PFC)

400V & 600V | 1A, 5A, 8A, 10A



Central Semiconductor's **Hyperfast Rectifiers** are designed specifically for extremely fast switching applications, such as PFC, where total conduction losses must be minimized and at the same time, power density maximized. All devices offer industry leading switching performance and make use of industry standard packages and mounting pad layouts for ease of manufacturing and adaptability for existing designs.

Features

- High current capability
- High surge capacity
- Hyperfast recovery time (< 25ns)
- High reverse voltage capability
- High power density

Applications

- Power Factor Correction (PFC)
- Motor control
- DC-DC output rectification
- Alternative energy inverters

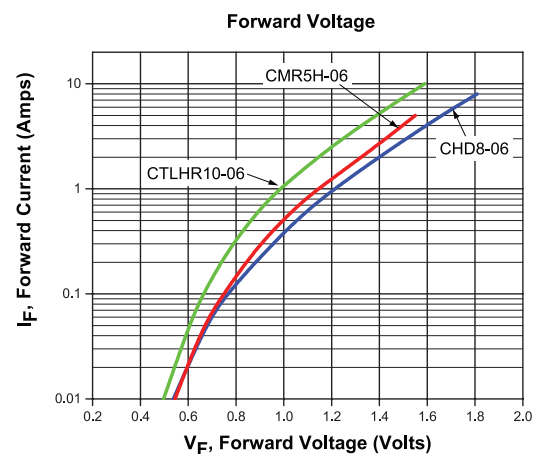
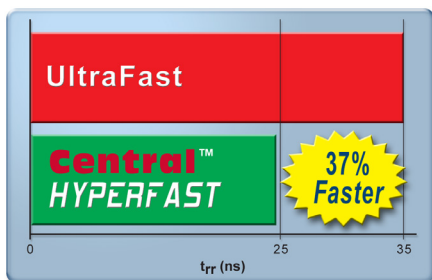
Benefits

- Energy efficiency
- Industry standard packages & footprints
- Low switching losses

Central Item No.	Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)				Electrical Characteristics: ($T_A = 25^\circ\text{C}$ unless otherwise noted)					Package Type
	V_{RRM} (V) MAX	I_O (A) MAX	T_J, T_{stg} ($^\circ\text{C}$) MAX	I_{FSM} (A) MAX	V_F (V) MAX	@ I_F (A)	I_R (μA) MAX	@ V_R (V)	t_{rr} (ns) TYP	
CMR1H-04MFL	400	1.0 ($T_L = 120^\circ\text{C}$)	-65 to +150	30	1.25	1.0	1.0	400	20	SMAFL
CMR5H-06	600	5.0 ($T_L = 75^\circ\text{C}$)	-65 to +175	100	1.7	5.0	1.0	600	20	SMC
CHD8-06	600	8.0 ($T_L = 100^\circ\text{C}$)	-65 to +175	70	2.2	8.0	10	600	22	DPAK
CTLHR10-06	600	10 ($T_L = 90^\circ\text{C}$)	-65 to +175	150	1.7	10	10	600	22	TLM364

Superior switching speed for optimal performance

Rectifiers with extremely fast reverse recovery speeds are essential in reducing switching losses and improving performance.



SPICE Models and other technical resources:

Visit www.centalsemi.com to download SPICE models for these devices.

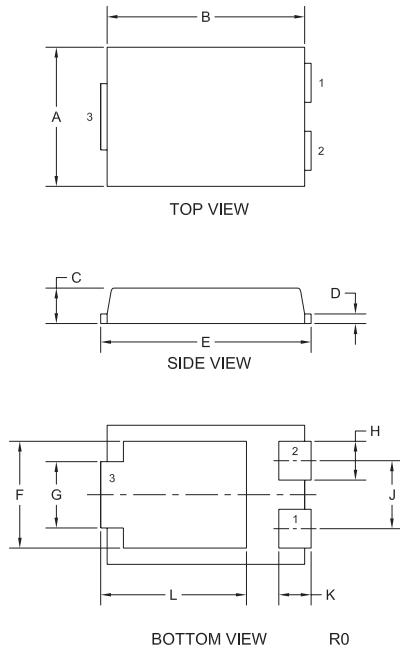
RoHS and REACH compliance declarations

Visit the Quality section of Central's website to access.

HyperFast Rectifiers ideal for Power Factor Correction (PFC)

400V & 600V | 1A, 5A, 8A, 10A

Mechanical Drawing - TLM364



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.167	0.172	4.25	4.35
B	0.238	0.243	6.05	6.15
C	0.039	0.048	1.00	1.20
D	0.009	0.014	0.25	0.35
E	0.250	0.262	6.35	6.65
F	0.128	0.136	3.25	3.45
G	0.076	0.085	1.95	2.15
H	0.044	0.052	1.10	1.30
J	0.083		2.10	
K	0.035	0.044	0.90	1.10
L	0.171	0.183	4.35	4.65

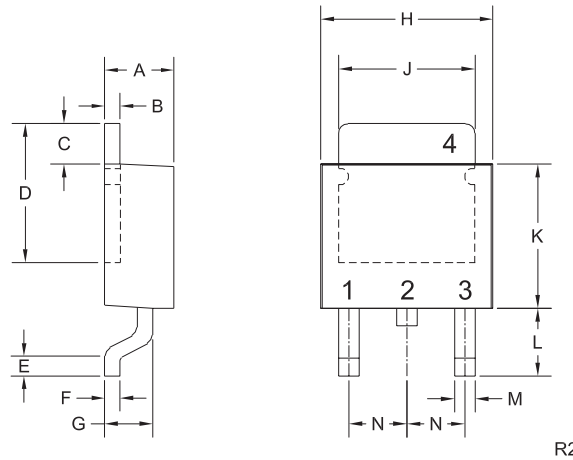
TLM364 (REV:R0)

LEAD CODE:

- 1) Anode
- 2) Anode
- 3) Cathode

MARKING CODE: CHR1006

Mechanical Drawing - DPAK



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.083	0.108	2.10	2.75
B	0.016	0.024	0.40	0.60
C	0.063		1.60	
D	0.203	0.219	5.15	5.55
E	0.039		1.00	
F	0.020		0.50	
G	0.051	0.071	1.30	1.80
H	0.248	0.268	6.30	6.80
J	0.197	0.217	5.00	5.50
K	0.209	0.224	5.30	5.70
L	0.090	0.106	2.30	2.70
M	0.012	0.031	0.30	0.80
N	0.091		2.30	

DPAK RECTIFIER (REV: R2)

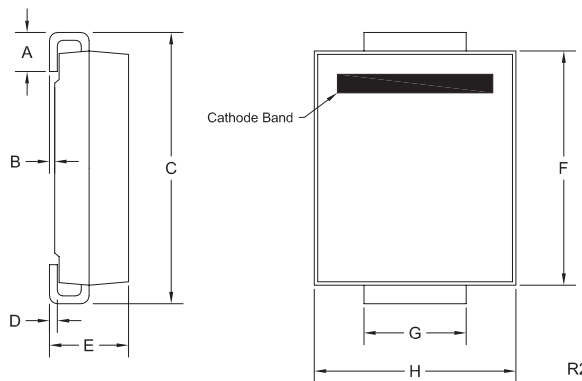
LEAD CODE:

- 1) Anode
 - 2) Cathode
 - 3) Anode
 - 4) Cathode
- Pin 2 is Common to Tab (4)

MARKING:

FULL PART NUMBER

Mechanical Drawing - SMC



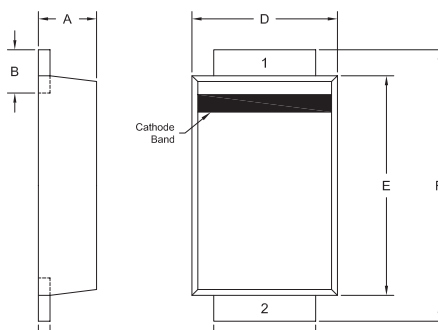
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	0.20
C	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

MARKING CODE: C5H06

Mechanical Drawing - SMAFL

Mechanical Drawing: SMAFL



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.685	-	17.40
B	-	0.626	-	15.90
C (DIA)	0.047	0.055	1.20	1.40
D	0.256	0.295	6.50	7.50
E	0.923	0.978	23.45	24.85
F (DIA)	-	0.157	-	4.00

AK (REV: R0)

MARKING CODE: CSF04M

For more information on Central's products and potential solutions:

Call us at: **1.631.435.1110**

Or view online: www.centrasemi.com/featured-products

