

The ZHCS Series diodes provide excellent high performance specifications in miniature surface mount packages. An optimized geometry / process with superior packaging gives an unmatched I_F / V_F performance and P_D capability, enabling significant space savings, circuit efficiencies and cost effective solutions to larger package options.

Complementing the very low V_F performance of the ZHCS series Zetex has introduced 4 new surface mount, high current, very low leakage, fast switching Schottky diodes. These new low leakage diodes are ideally suited to applications requiring efficient operation at higher temperatures, often a significant limitation of conventional Schottky types. The ZLLS series diodes are provided in a choice of packages which relate directly to die size and I_F performance ensuring that designers have the optimum choice of package size / performance / cost.

Features

- V_R 40V and 60V types
- Low forward voltage
- High current capability
- Fast recovery time
- Miniature package size options
- Very low V_F at high temperature operation (above 85°C) (ZLLS series) complement the existing range of ZHCS series (optimized for operation at lower temperatures)
- ZHCS types can be found in other products and solutions:
MLP outline - www.zetex.com/3.0/combi.asp
ZXSC300/310/400 LED driver solution and
ZSXC100/410/420 boost converter solution -
www.zetex.com/led & www.zetex.com/zxsc100

Applications

- Forward and flyback converters
- Mobile telecommunications, PCMCIA (flashcards) and SCSI LAN PSUs
- Distributed and auxiliary supplies
- High frequency rectification
- DC conversion (telecom DC modules)
- Charging circuits
- Motor control

ZHCS Series - Schottky Rectifier Diodes

Part Number	V_R	I_F	I_{FSM}	V_F at		I_R at		Capacitance at $V_R = 25V, f = 1MHz$ Typ. pF	Package
	Max V	Max mA	Max A	Max mV	I_F mA	Max μA	V_R V		
ZHCS2000	40	2000	20	500	2000	250	30	60	SOT23-6
ZHCS1000	40	1000	12	500	1000	100	30	25	SOT23
ZHCS750	40	750	12	540	750	100	30	25	SOT23
ZHCS500	40	500	6.75	550	500	40	30	20	SOT23
ZHCS400	40	400	6.75	500	400	40	30	20	SOD323
ZHCS1006	60	900	12	600	1000	100	45	17	SOT23
ZHCS756	60	750	12	610	750	100	45	17	SOT23
ZHCS506	60	500	5.5	630	500	40	45	20	SOT23

ZLLS Series - Low Leakage Schottky Rectifier Diodes

Part Number	V_R V	I_F A	V_F at		I_R at 30V μA	T_{rr} ns	C_D pF	P_D W	Package
			Max mV	mA					
ZLLS2000	40	2.2	540	2000	40	3.71	65.0	1.1	SOT23-6
ZLLS1000	40	1.16	560	1000	20	2.58	31.0	0.625	SOT23
ZLLS500	40	0.7	530	500	10	2.46	15.5	0.5	SOT23
ZLLS400	40	0.52	500	400	10	2.46	15.5	0.33	SOD323

Connection Diagrams

