

## 40A 100V LOW VF SCHOTTKY RECTIFIER

### Features:

- Super Low Forward Voltage ( SLVF® ) Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

### Applications:

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications

KSR40100LCT



TO-220AB  
KSRB40100LCT

KSRF40100LCT



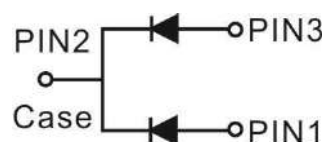
ITO-220AB  
KSRD40100LCT



TO-262



TO-263



### Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	20 × 2	A
$V_{RRM}$	100	V
$V_F@10A, T_j=125^\circ C$	0.58	V,
$T_j$ Operating Junction Temperature	-65 to +150	°C

## 1. Characteristics

### Maximum Ratings Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise specified )

Parameter	Symbol	Values	Units
DC Blocking Voltage	$V_{RM}$	100	Volts
Working Peak Reverse Voltage	$V_{RWM}$		
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Average Rectified Forward Current Per device (Rated VR-20Khz Square Wave) - 50% duty cycle	$I_o$	40	Amps
Peak Forward Surge Current - 1/2 60hz	$I_{FSM}$	250	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	5	Amps
Typical Thermal Resistance (per leg) Package = TO-220AB Package = ITO-220AB Package = TO-262 Package = TO-263	$R\theta_{Jc}$	2 3.5 2.5 3	$^\circ\text{C} / \text{W}$
Isolation voltage (ITO-220 only)	$V_{AC}$	1500	V
Maximum Rate of Voltage Change ( at Rated $V_R$ )	$dv/dt$	10000	V/uS
Operating Junction Temperature	$T_J$	- 40 to +150	$^\circ\text{C}$
Storage Junction Temperature	$T_{STG}$	- 40 to +150	

### Electrical Characteristics - (per leg) ( $T_A = 25^\circ\text{C}$ unless otherwise specified )

Parameter	Test Conditions	Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 10A	$V_F^*$	0.55	-----	Volts
	IF = 20 A		-----	0.72	
	IF = 10A		0.52	-----	
	IF = 20 A		-----	0.68	
Instantaneous Reverse Current	At $V_{RM}$	$I_R^*$	8.0	100	$\mu\text{A}$
			-----	5	mA

\* Pulse width < 300 uS, Duty cycle < 2%

## 2. Characteristics Curves

### Ratings and Characteristics Curves

( TA = 25°C unless otherwise specified )

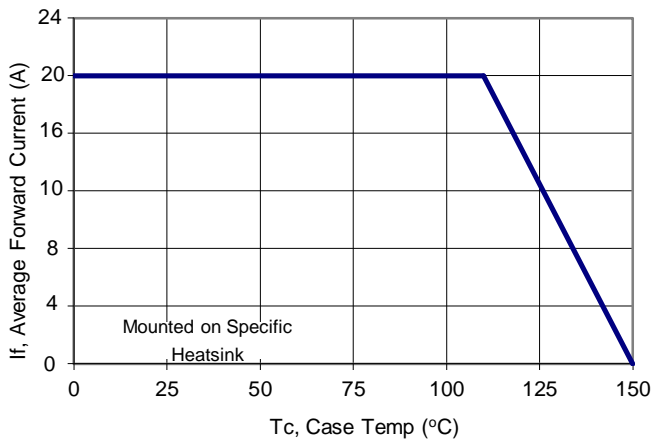


Figure 1: Current Derating, Case

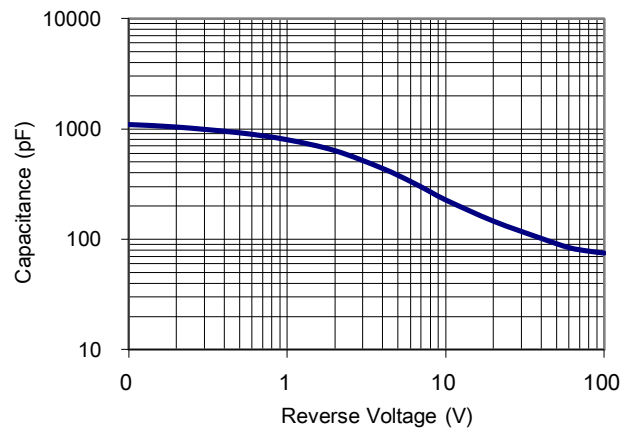


Figure 2: Typical Junction Capacitance

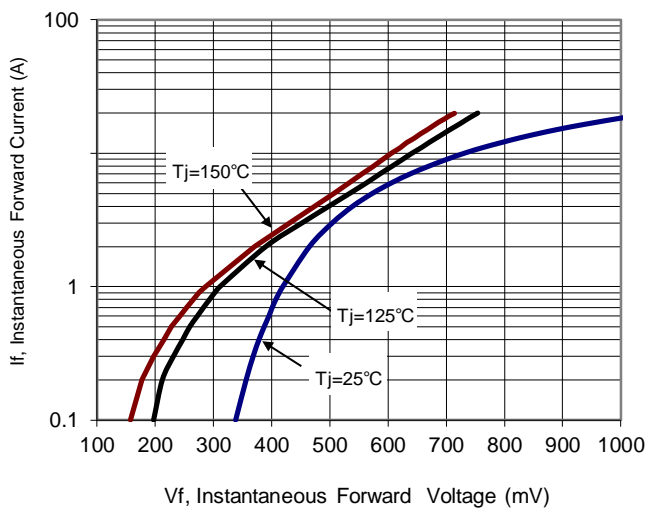


Figure 3: Typical Forward Voltage

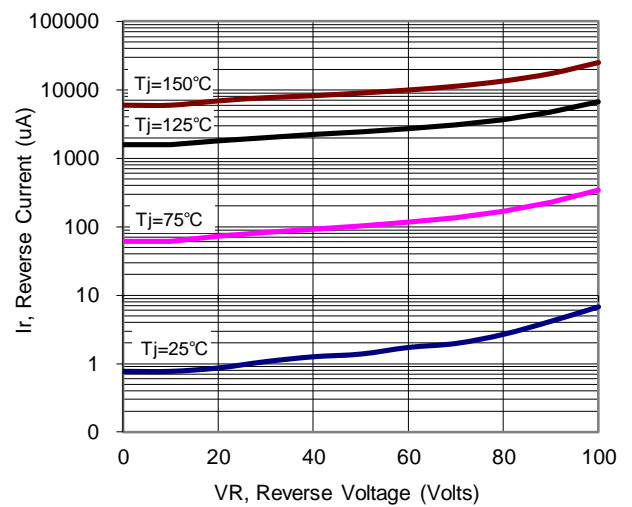


Figure 4: Typical Reverse Current

### 3. Marking information

#### Top Marking Rule

**SR40100LCT**  
**YYWW**

SR40100LCT = Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

WW = Week code

**SRF40100LCT**  
**YYWW**

SRF40100LCT = Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

WW = Week code

**SRB40100LCT**  
**YYWW**

SRB40100LCT = Product Type Marking Code

YYWW = Date Code

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WW = Week code

**SRD40100LCT**  
**YYWW**

SRD40100LCT = Product Type Marking Code

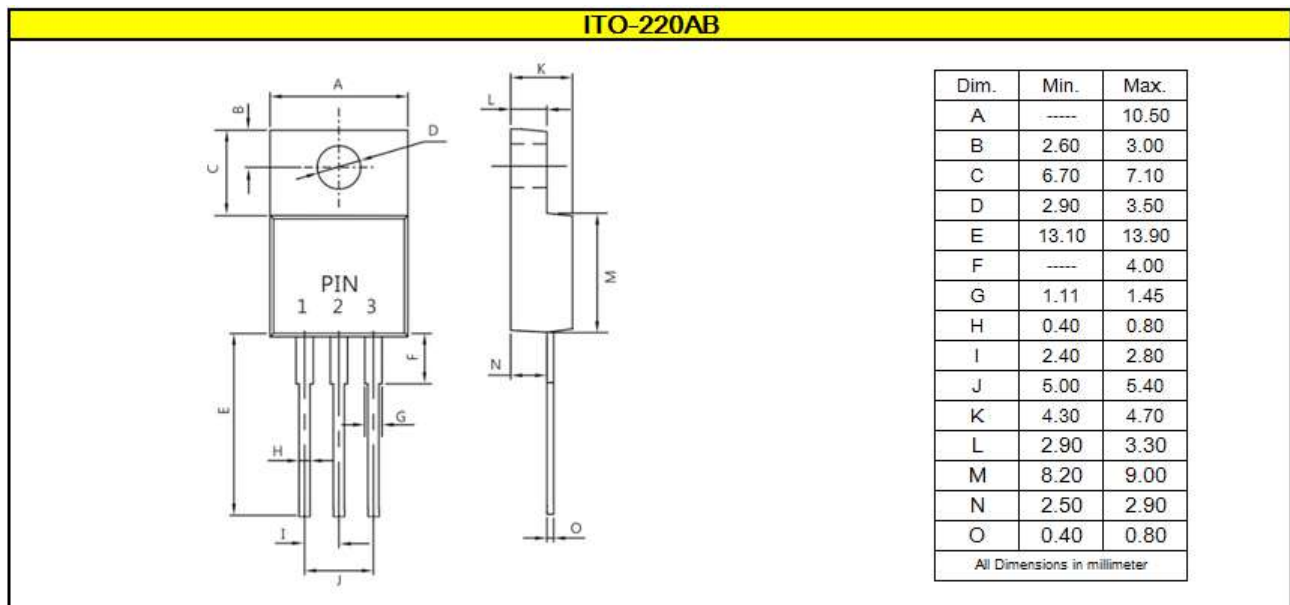
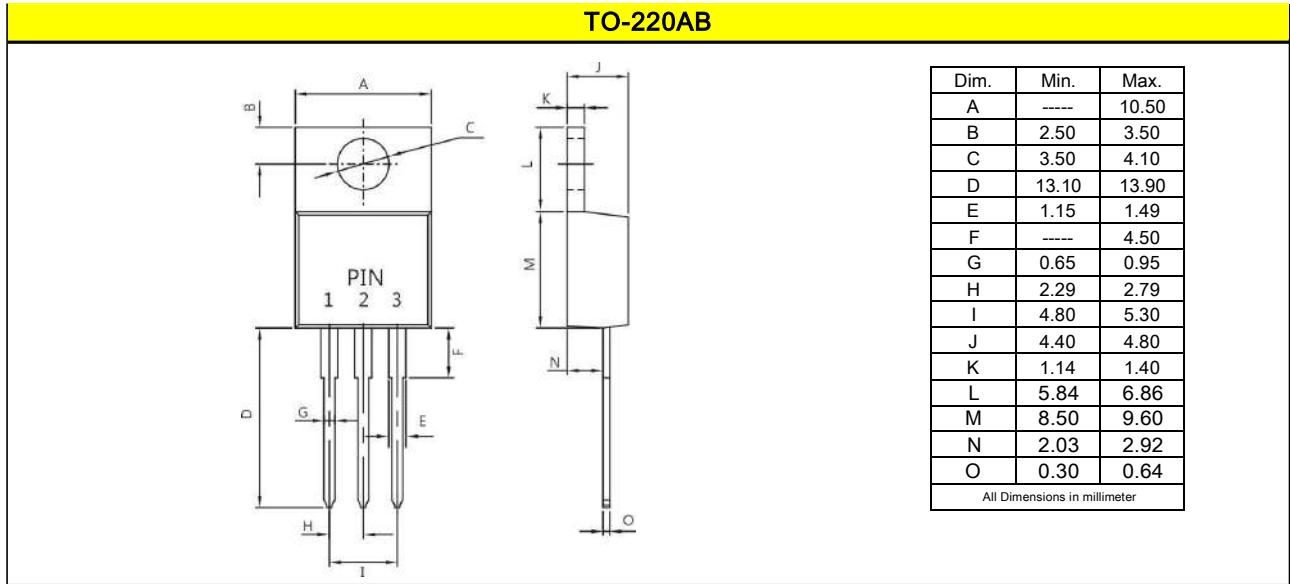
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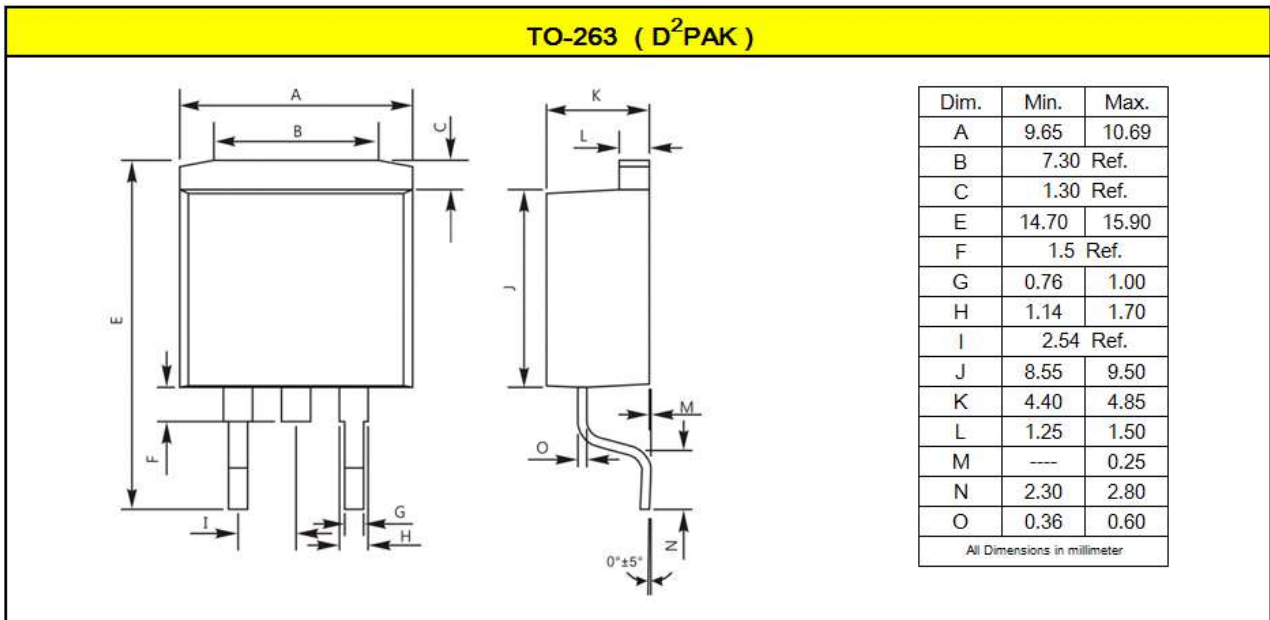
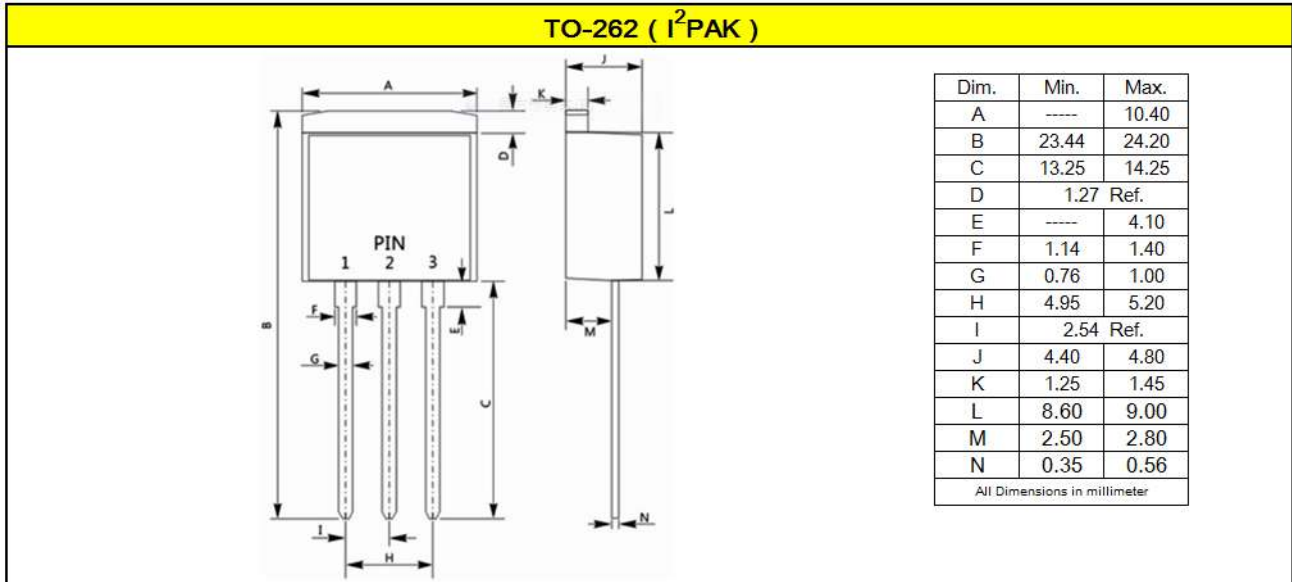
WW = Week code

## 4. Package information

Package Outline Dimensions millimeters



**Package Outline Dimensions millimeters**



## 5. Ordering information

Part Number	Package	Delivery mode
KSR40100LCT	TO-220AB	50 pieces / tube
KSRF40100LCT	ITO-220AB	50 pieces / tube
KSRB40100LCT	TO-262	50 pieces / tube
KSRD40100LCT	TO-263	800 pieces / 13" diameter reel

### Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.07 ounces (1.96grams) - TO-220AB  
0.06 ounces (1.74grams) - ITO-220AB  
0.05 ounces (1.45 grams) - TO-262  
0.04 ounces (1.16 grams) - TO-263
- Mounting Torque : Recommended 4~5 kg-cm.