

## 30A 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

KSR30100LCT



**TO-220AB**

KSRF30100LCT



**ITO-220AB**

KSRB30100LCT

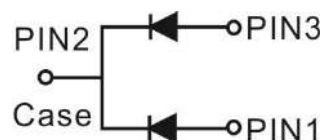


**TO-262**

KSRD30100LCT



**TO-263**



### Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	15 × 2	A
$V_{RRM}$	100	V
$V_F@ 5A, T_j=125^\circ C$	0.52	V,
$T_j$ Operating Junction Temperature	-65 to +150	$^\circ C$

## 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	$I_o$	30	Amps
(Rated VR-20Khz Square Wave) - 50% duty cycle			
Peak Forward Surge Current - 1/2 60hz	$I_{FSM}$	200	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	4	Amps
Typical Thermal Resistance (per leg)	$R\theta_{JC}$	2	$^\circ\text{C} / \text{W}$
Package = TO-220AB		4	
Package = ITO-220AB		2.5	
Package = TO-262		3	
Package = TO-263			
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	$T_J = 25^\circ\text{C}$	$V_F^*$	0.55	-----	Volts
	IF = 15 A			-----	0.72	
	IF = 10A	$T_J = 125^\circ\text{C}$		0.52	-----	
	IF = 15 A			-----	0.65	
Instantaneous Reverse Current	At $V_{RM}$	$T_J = 25^\circ\text{C}$	$I_R^*$	8.0	100	$\mu\text{A}$
		$T_J = 125^\circ\text{C}$		-----	10	mA

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

## 2. Characteristics Curves

### Ratings and Characteristics Curves

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

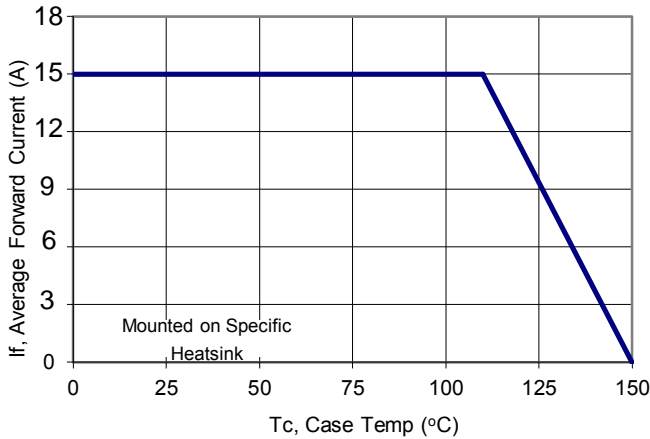


Figure 1: Current Derating, Case

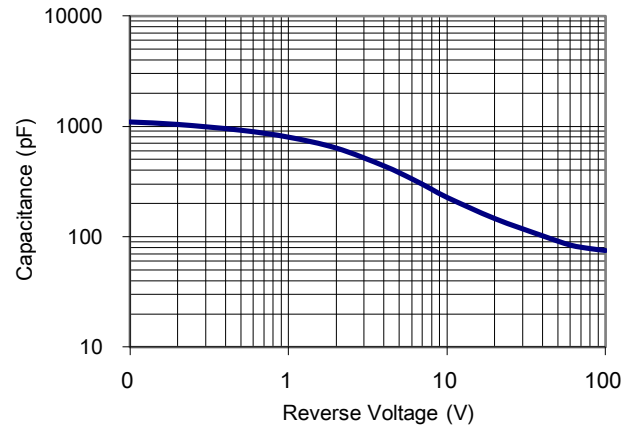


Figure 2: Typical Junction Capacitance

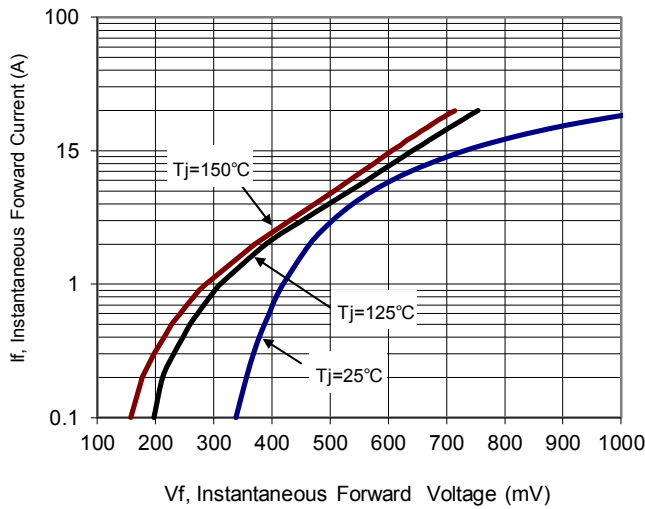


Figure 3: Typical Forward Voltage

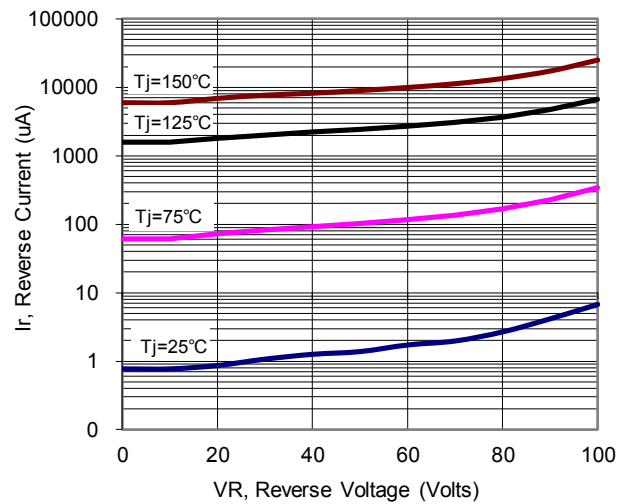


Figure 4: Typical Reverse Current

### 3. Marking information

#### Top Marking Rule

**SR30100LCT**  
**YYWW**

SR30100LCT= Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

WW = Week code

**SRF30100LCT**  
**YYWW**

SRF30100LCT= Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

WW = Week code

**SRB30100LCT**  
**YYWW**

SRB30100LCT= Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

WW = Week code

**SRD30100LCT**  
**YYWW**

SRD30100LCT = Product Type Marking Code

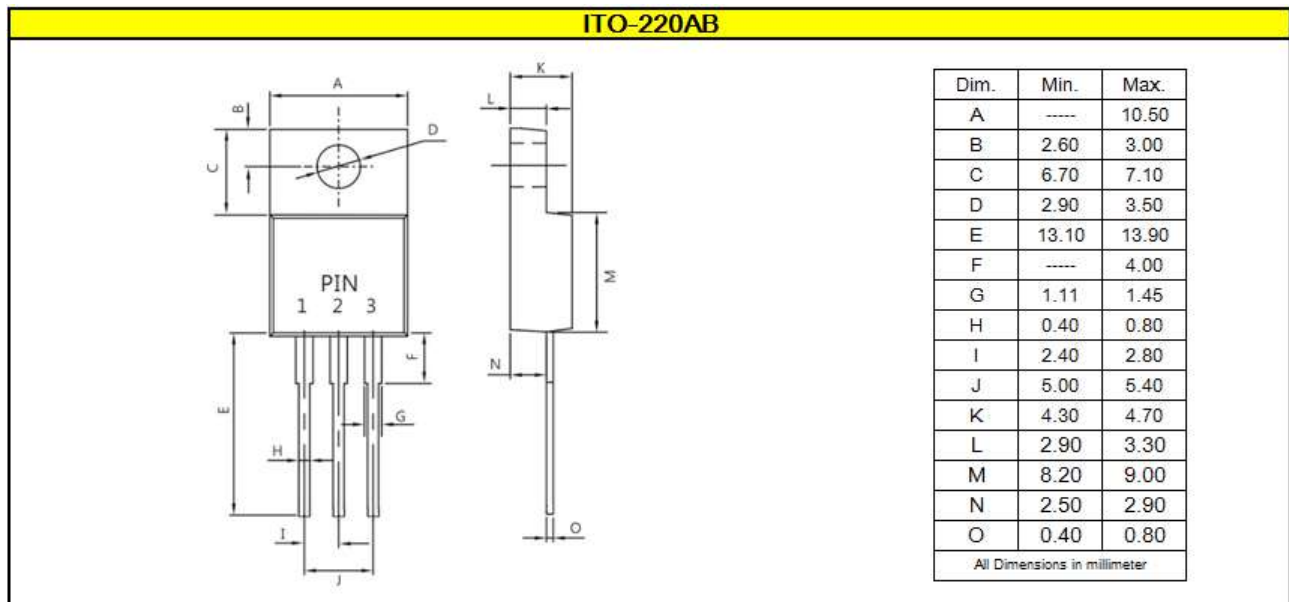
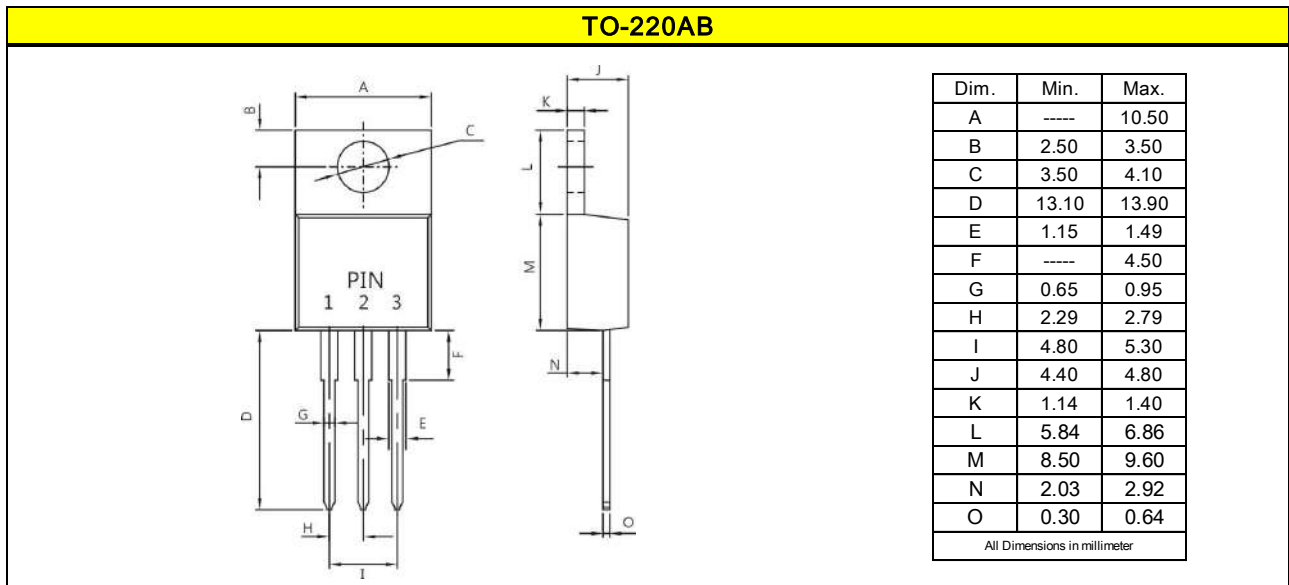
YYWW = Date Code

YY = Last two digits of year

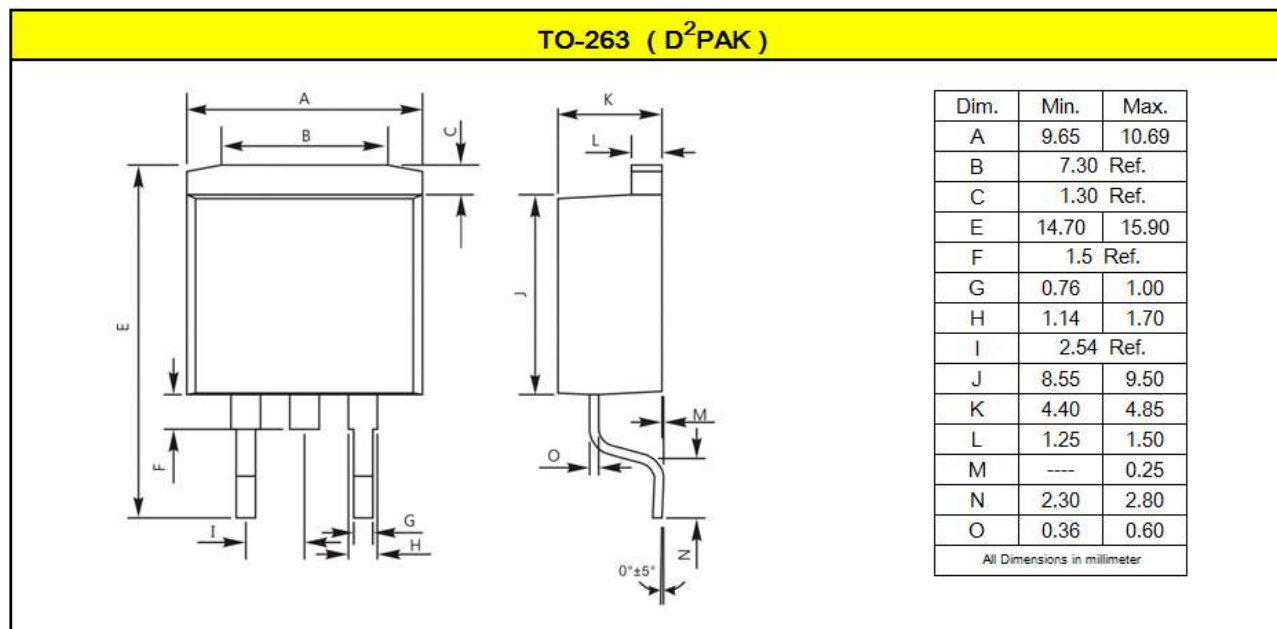
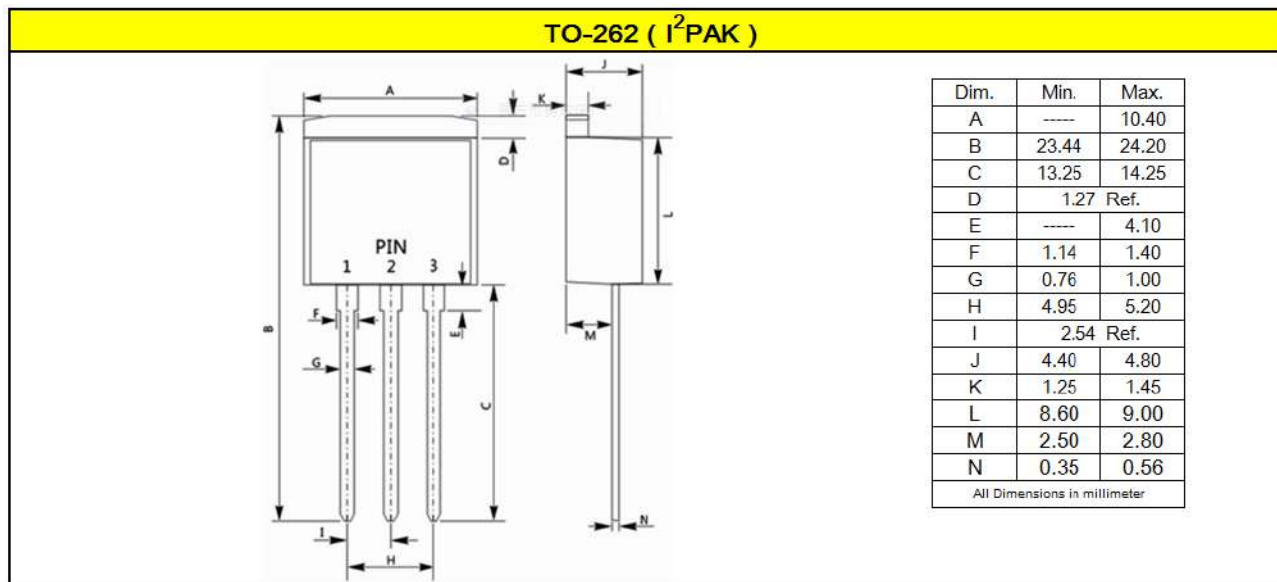
WW = Week code

## 4. Package information

Package Outline Dimensions millimeters



**Package Outline Dimensions millimeters**



## 5. Ordering information

Part Number	Package	Delivery mode
KSR30100LCT	TO-220AB	50 pieces / tube
KSRF30100LCT	ITO-220AB	50 pieces / tube
KSRB30100LCT	TO-262	50 pieces / tube
KSRD30100LCT	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.