

## 10A 150V 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

KSR10150CT



TO-220AB

KSRF10150CT



ITO-220AB

KSRB10150CT

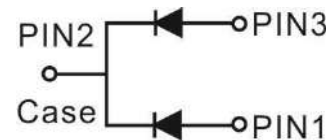


TO-262

KSRD10150CT



TO-263



### Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	5× 2	A
$V_{RRM}$	150	V
$V_F@ 5A$ , $T_j=125^\circ C$	0.76	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	$V_{RM}$	150	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	$I_o$	10	Amps
Peak Forward Surge Current - 1/2 60hz	$I_{FSM}$	150	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	1.5	Amps
Typical Thermal Resistance (per leg) Package = TO-220AB Package = ITO-220AB Package = TO-262 Package = TO-263	$R\theta_{Jc}$	2.0 4.0 2.5 3.0	$^\circ\text{C} / \text{W}$
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	$I_F = 2.5\text{A}$	$T_J = 25^\circ\text{C}$	$V_F^*$	0.75	-----	Volts
	$I_F = 5\text{A}$			0.85	0.90	
	$I_F = 2.5\text{A}$	$T_J = 125^\circ\text{C}$		0.60	-----	
	$I_F = 5\text{A}$			-----	0.76	
Instantaneous Reverse Current	At $V_{RM}$	$T_J = 25^\circ\text{C}$	$I_R^*$	-----	10	$\mu\text{A}$
		$T_J = 125^\circ\text{C}$		-----	2	mA
* Pulse width < 300 uS, Duty cycle < 2%						

Typical Junction Capacitance <sup>1</sup>	$C_J$	230	pF
---	-------	-----	----

Notes:

1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.

## 2. Characteristics Curves

### Ratings and Characteristics Curves

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

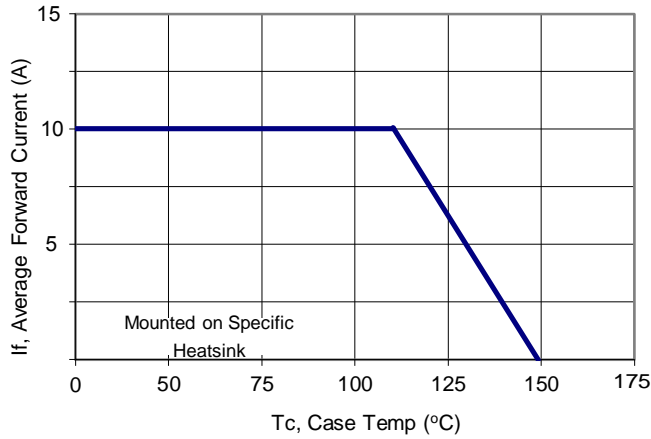


Figure 1: Current Derating, Case

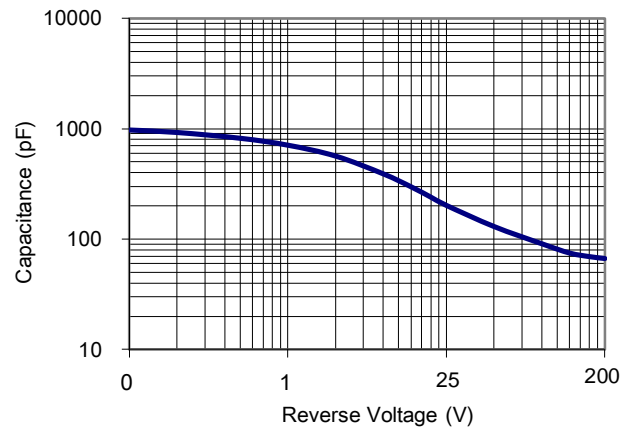


Figure 2: Typical Junction Capacitance

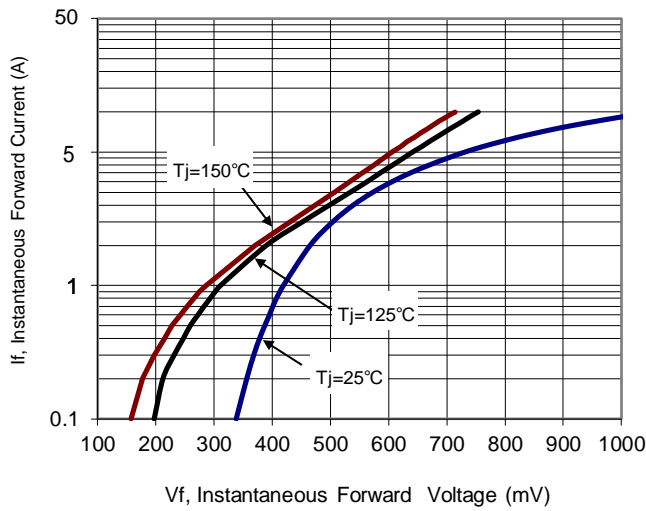


Figure 3: Typical Forward Voltage

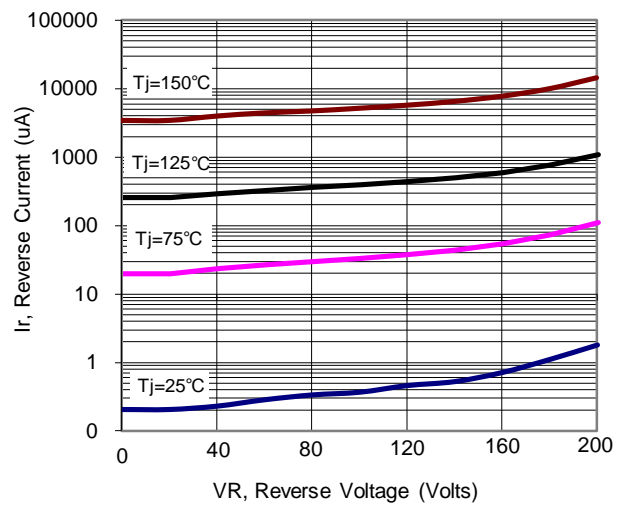


Figure 4: Typical Reverse Current

### 3. Marking information

#### Top Marking Rule

SR10150CT

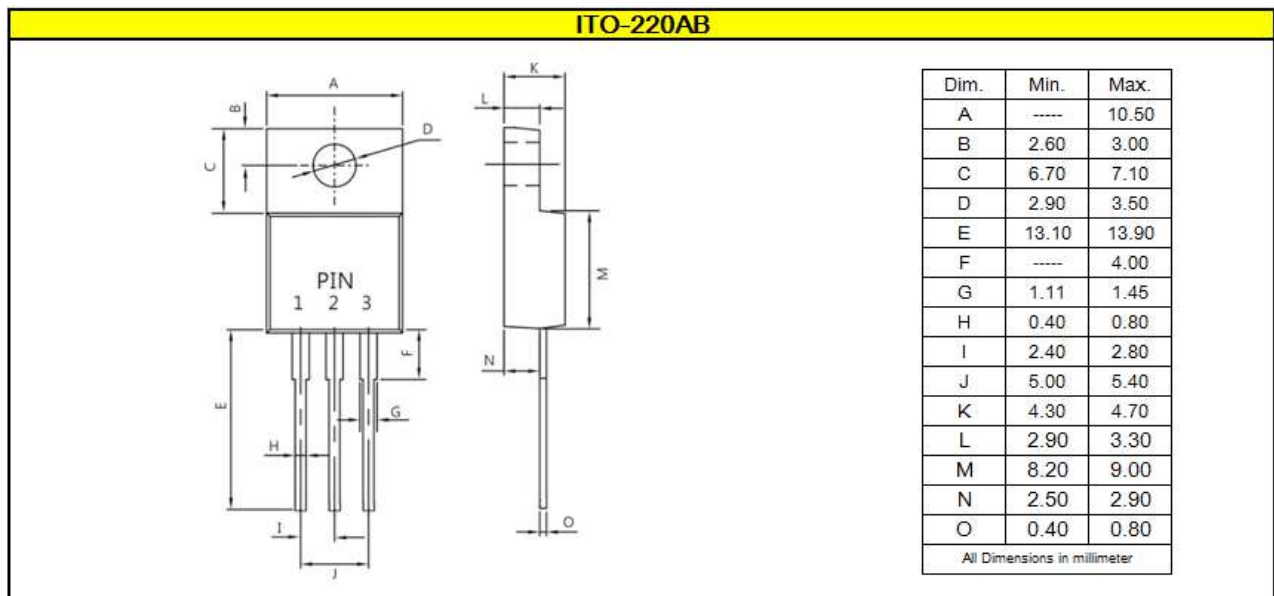
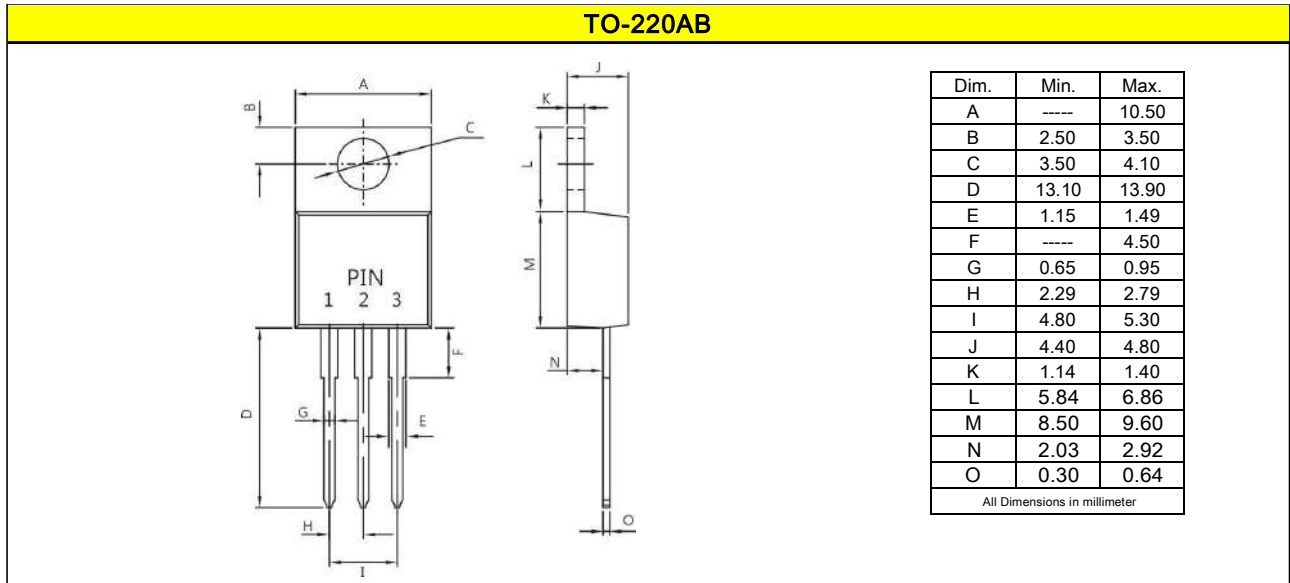
SRF10150CT

SRB10150CT

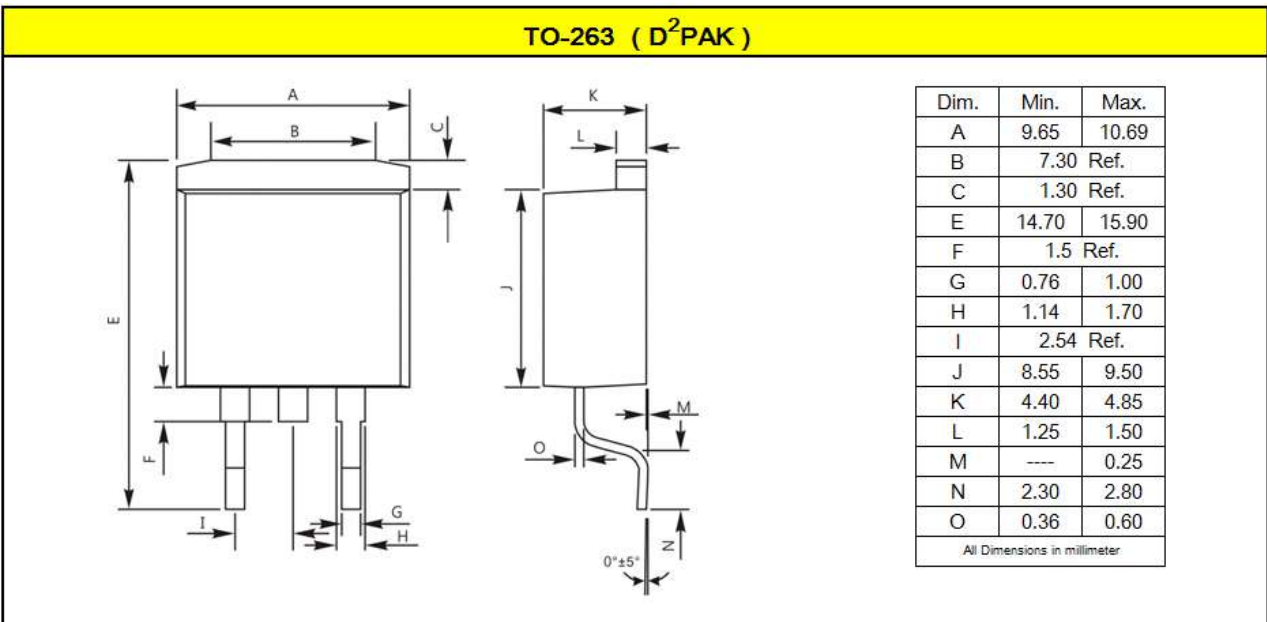
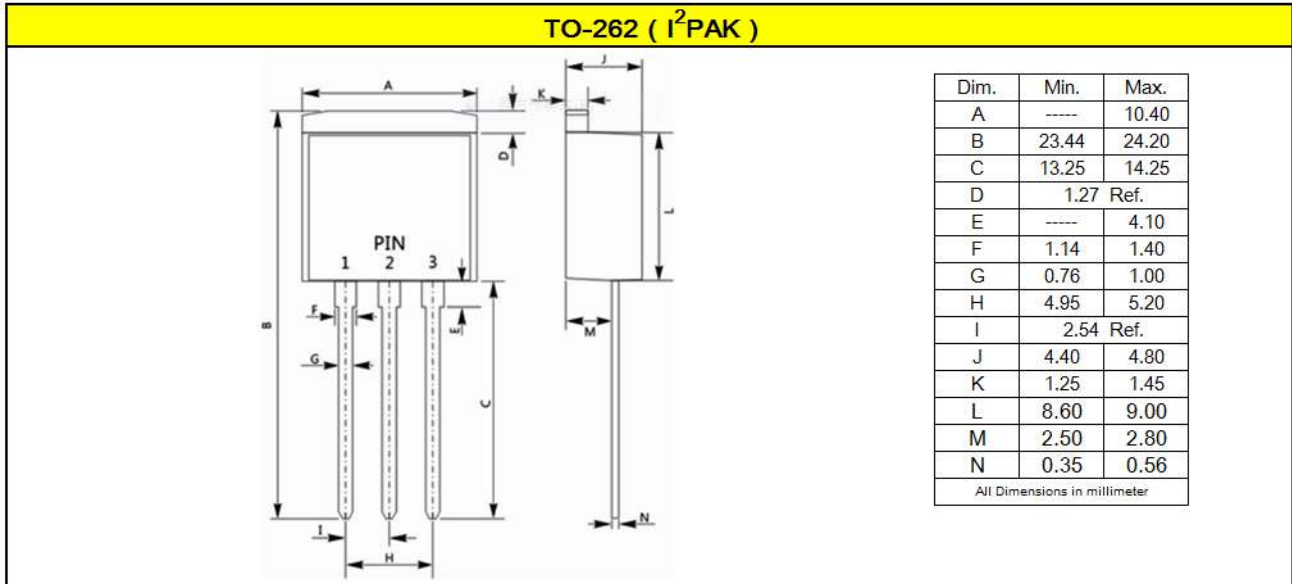
SRD10150CT

## 4. Package information

Package Outline Dimensions millimeters



**Package Outline Dimensions millimeters**



## 5. Ordering information

Part Number	Package	Delivery mode
KSR10150CT	TO-220AB	50 pieces / tube
KSRF10150CT	ITO-220AB	50 pieces / tube
KSRB10150CT	TO-262	50 pieces / tube
KSRD10150CT	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.