

## 40A 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

KSR40150CT



TO-220AB

KSRB40150CT



TO-262

KSRF40150CT

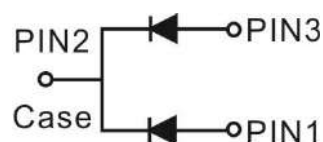


ITO-220AB

KSRD40150CT



TO-263



### Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	20 × 2	A
$V_{RRM}$	150	V
$V_F@ 20A, T_j=125^\circ C$	0.67	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	$V_{RM}$	150	Volts
Working Peak Reverse Voltage	$V_{RWM}$		
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Average Rectified Forward Current Per device	$I_o$	40	Amps
(Rated VR-20Khz Square Wave) - 50% duty cycle			
Peak Forward Surge Current - 1/2 60hz	$I_{FSM}$	300	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	4	Amps
Typical Thermal Resistance (per leg)	$R\theta_{JC}$	2.3	$^{\circ}\text{C} / \text{W}$
Package = TO-220AB		4.7	
Package = ITO-220AB		3.6	
Package = TO-262		4	
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 = 10 A	$V_F^*$	0.72	-----	Volts
	IF = 20 A		-----	0.92	
	IF = 10 A		0.67	-----	
	IF = 20 A		-----	0.82	
Instantaneous Reverse Current	At $V_{RM}$	$I_R^*$	2.0	8.0	$\mu\text{A}$
			-----	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 )

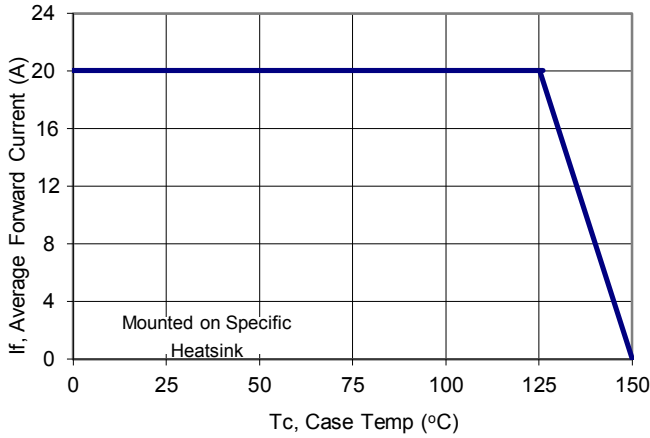


Figure 1: Current Derating, Case

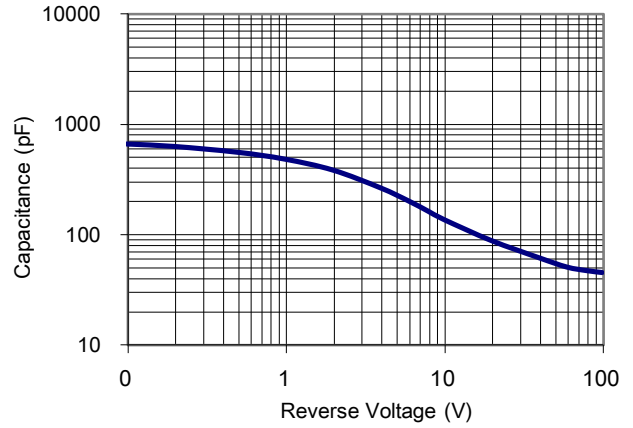


Figure 2: Typical Junction Capacitance

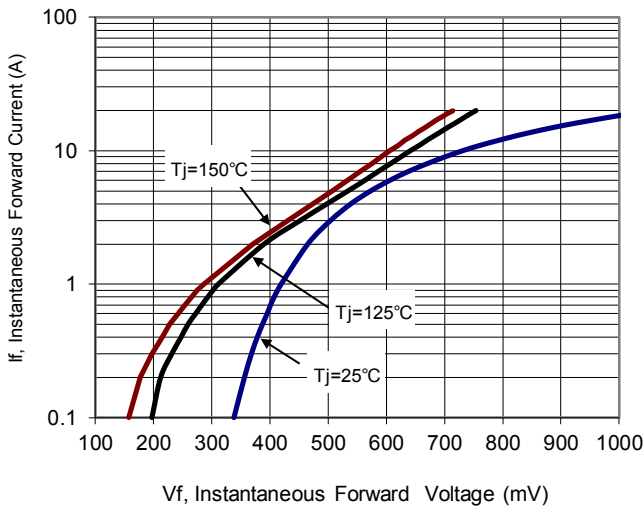


Figure 3: Typical Forward Voltage

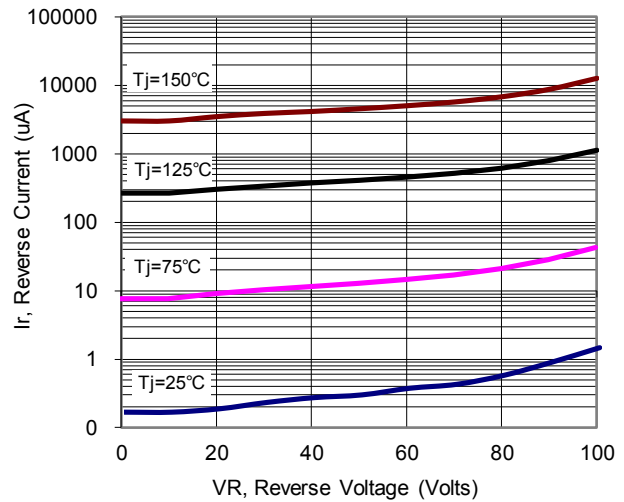


Figure 4: Typical Reverse Current

### 3. Marking information

#### Top Marking Rule

**SR40150CT**  
**YWW**

SR40150CT = Product Type Marking Code  
YWW = Date Code  
Y = Last two digits of year  
WW = Week code

**SRF40150CT**  
**YWW**

SRF40150CT = Product Type Marking Code  
YWW = Date Code  
Y = Last two digits of year  
WW = Week code

**SRB40150CT**  
**YWW**

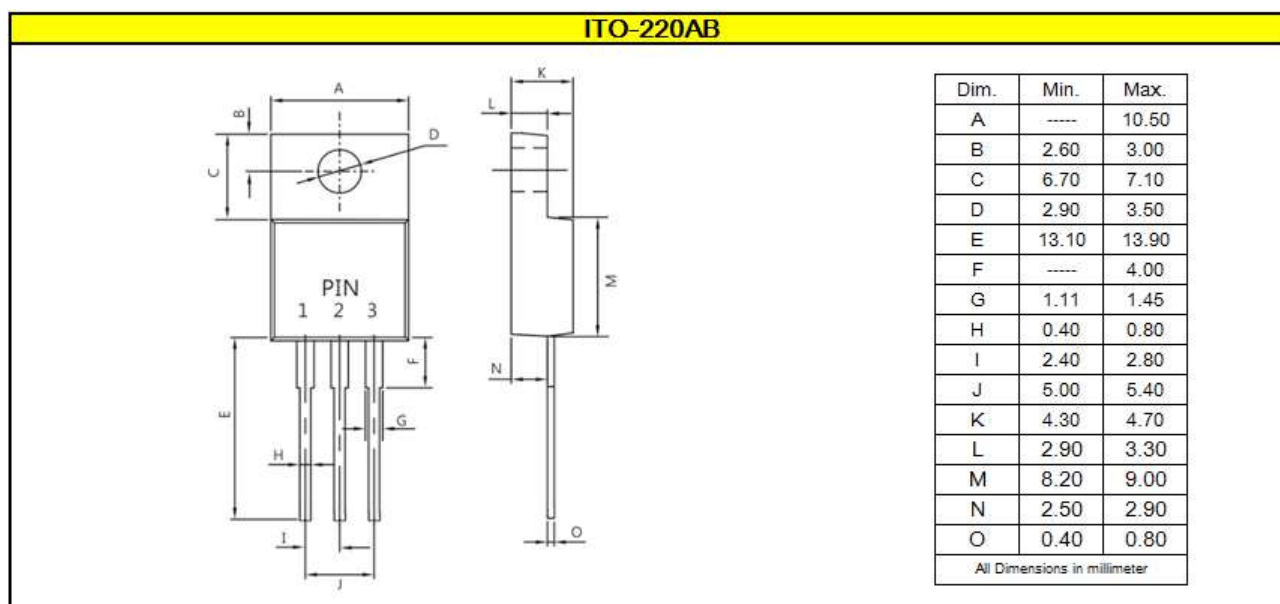
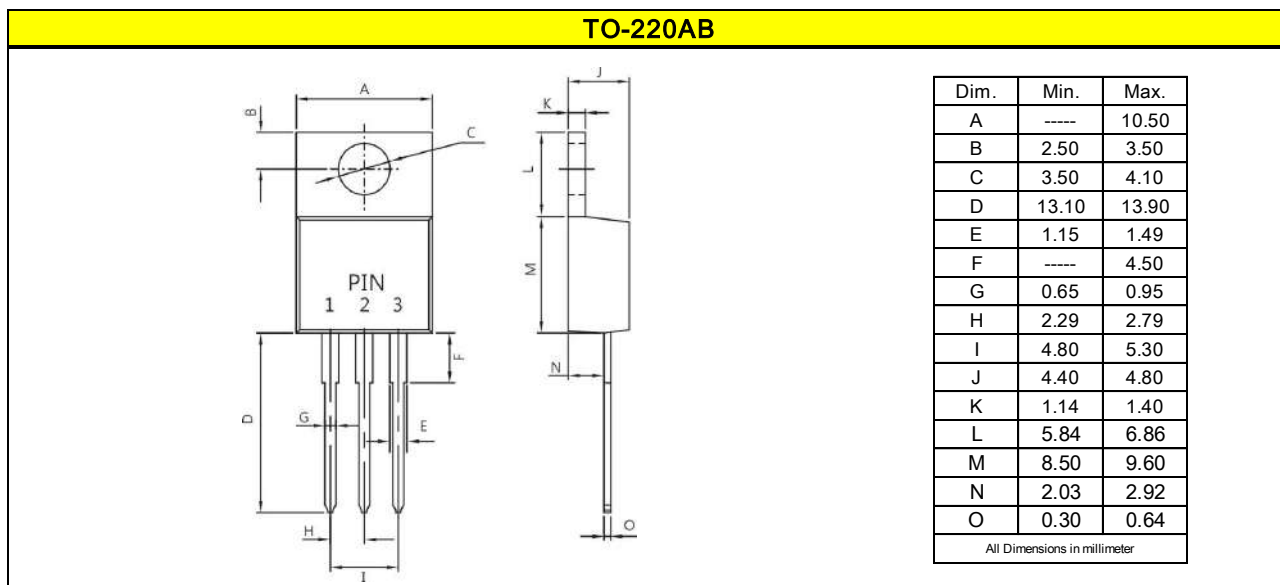
SRB40150CT = Product Type Marking Code  
YWW = Date Code  
Y = Last two digits of year  
WW = Week code

**SRD40150CT**  
**YWW**

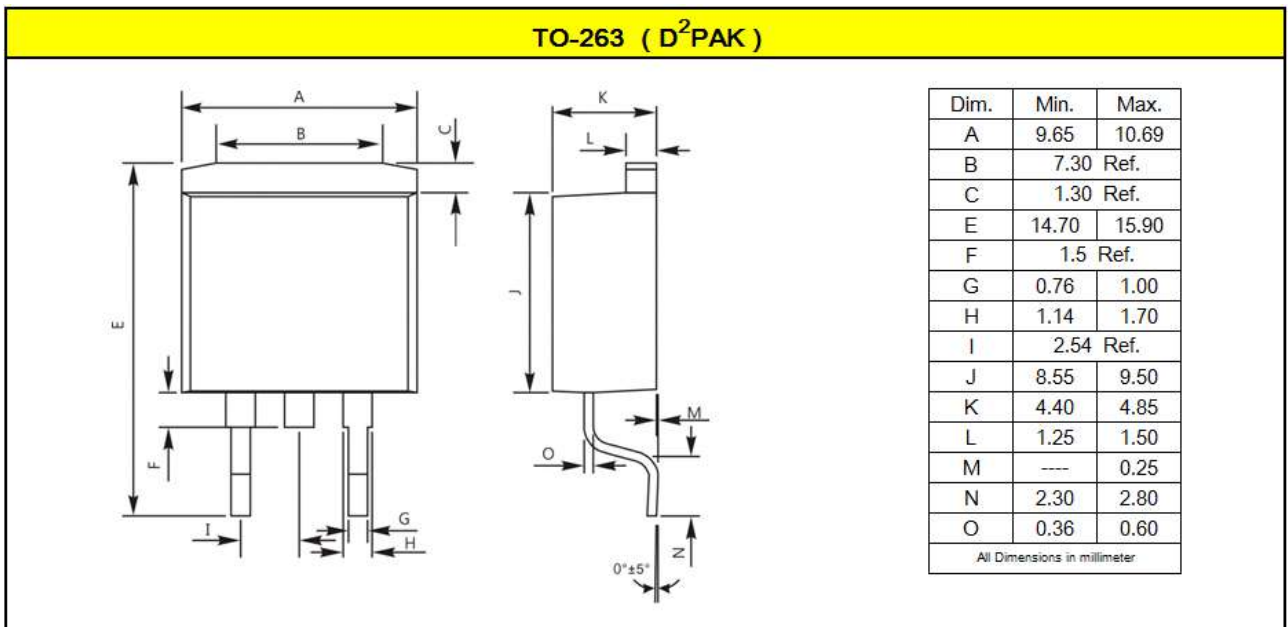
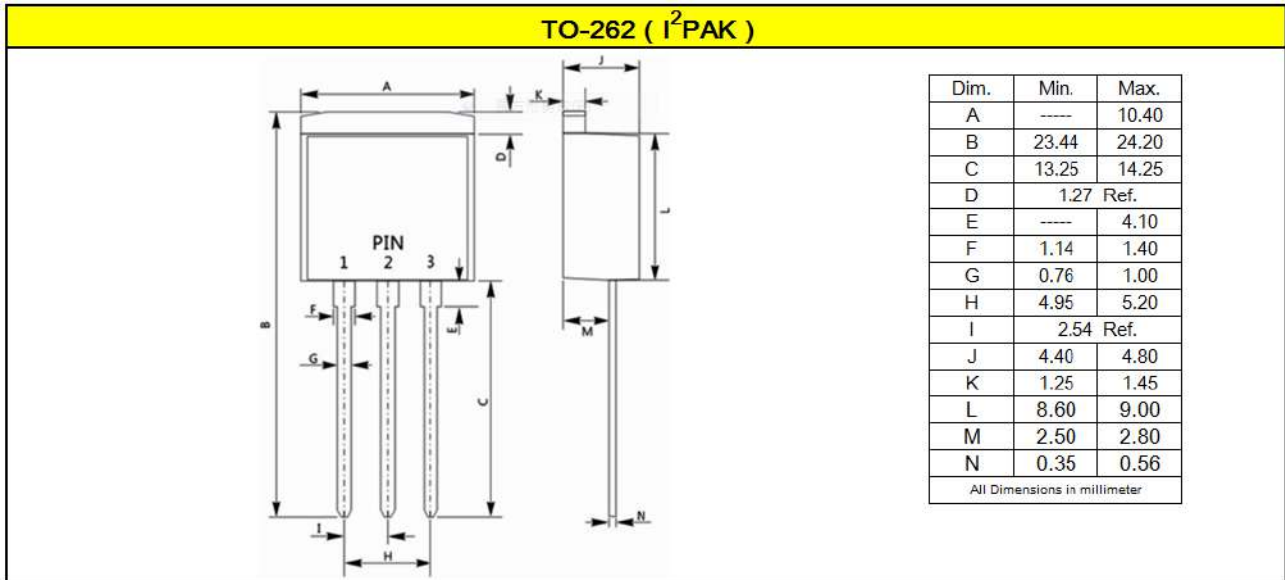
SRD40150CT = Product Type Marking Code  
YWW = Date Code  
Y = Last two digits of year  
WW = Week code

## 4. Package information

Package Outline Dimensions millimeters



**Package Outline Dimensions millimeters**



## 5. Ordering information

Part Number	Package	Delivery mode
KSR40150CT	TO-220AB	50 pieces / tube
KSRF40150CT	ITO-220AB	50 pieces / tube
KSRB40150CT	TO-262	50 pieces / tube
KSRD40150CT	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.