

10A 60V 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:

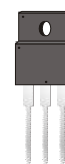
Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications

KSR1060CT



TO-220AB

KSRF1060CT



ITO-220AB

KSRB1060CT

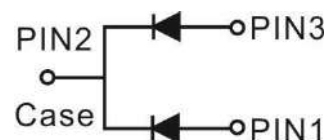


TO-262

KSRD1060CT



TO-263



Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	5 × 2	A
V_{RRM}	60	V
$V_F@5A, T_j=125\text{ }^\circ\text{C}$	0.54	V
T_j Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

Characteristics

Maximum Ratings Characteristics

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

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}	60	Volts
Working Peak Reverse Voltage	V_{RWM}		
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current Per device	I_o	10	Amps
(Rated VR-20Khz Square Wave) - 50% duty cycle			
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	150	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	0.6	Amps
Typical Thermal Resistance (per leg)	$R\theta_{JC}$	2.0	$^\circ\text{C} / \text{W}$
Package = TO-220AB		4.0	
Package = ITO-220AB		2.5	
Package = TO-262		2.0	
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 = 5A	$T_J = 25^\circ\text{C}$	V_F^*	0.58	0.62	Volts
	IF = 10 A			-----	0.68	
	IF = 5A	$T_J = 125^\circ\text{C}$		0.54	-----	
	IF = 10 A			-----	0.62	
Instantaneous Reverse Current	At V_{RM}	$T_J = 25^\circ\text{C}$	I_R^*	5.0	20	μA
		$T_J = 125^\circ\text{C}$		-----	2.0	mA

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

Characteristics Curves

Ratings and Characteristics Curves

(TA = 25°C unless otherwise specified)

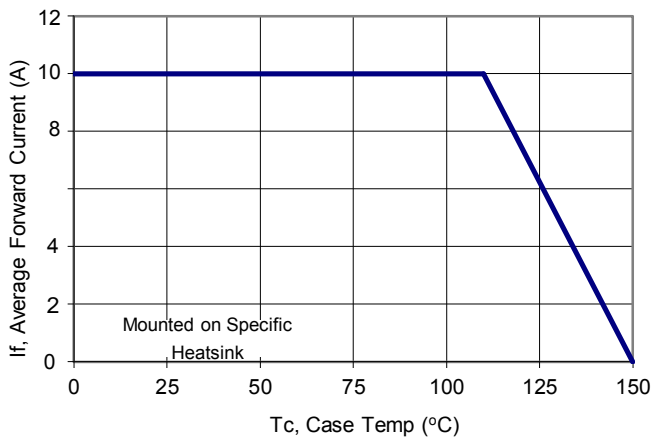


Figure 1: Current Derating, Case

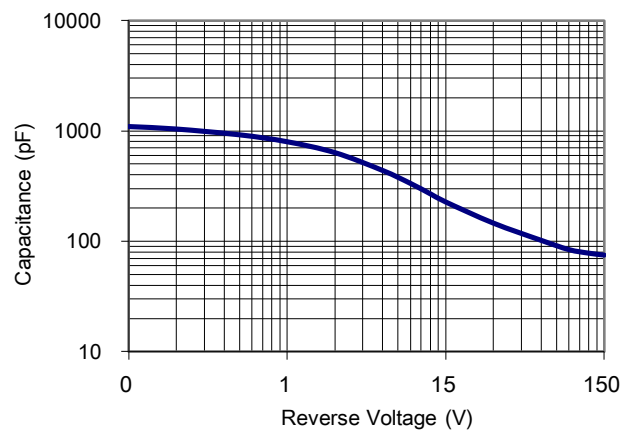


Figure 2: Typical Junction Capacitance

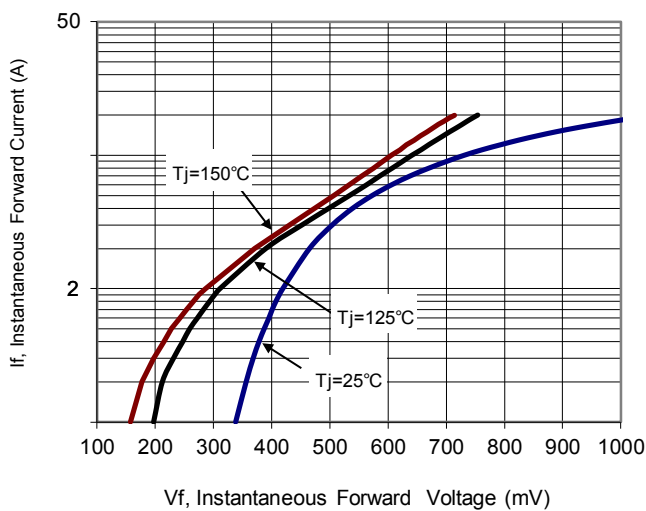


Figure 3: Typical Forward Voltage

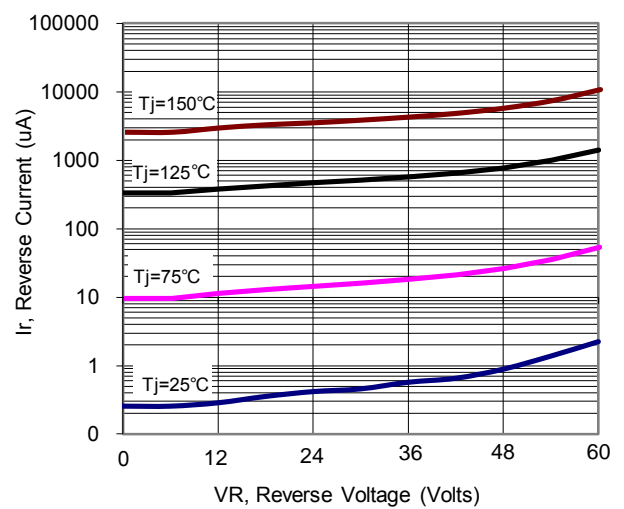
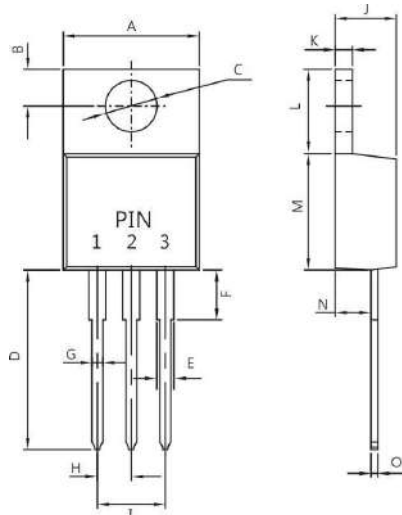


Figure 4: Typical Reverse Current

Package information

Package Outline Dimensions millimeters

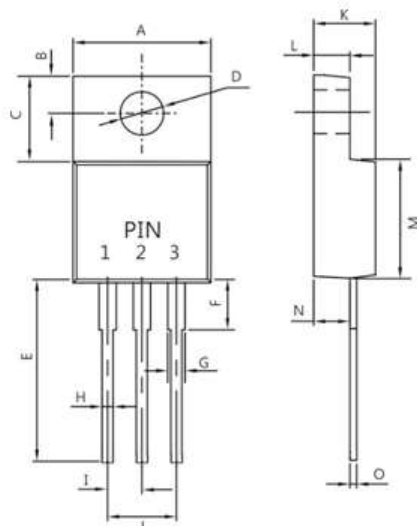
TO-220AB



Dim.	Min.	Max.
A	-----	10.50
B	2.50	3.50
C	3.50	4.10
D	13.10	13.90
E	1.15	1.49
F	-----	4.50
G	0.65	0.95
H	2.29	2.79
I	4.80	5.30
J	4.40	4.80
K	1.14	1.40
L	5.84	6.86
M	8.50	9.60
N	2.03	2.92
O	0.30	0.64

All Dimensions in millimeter

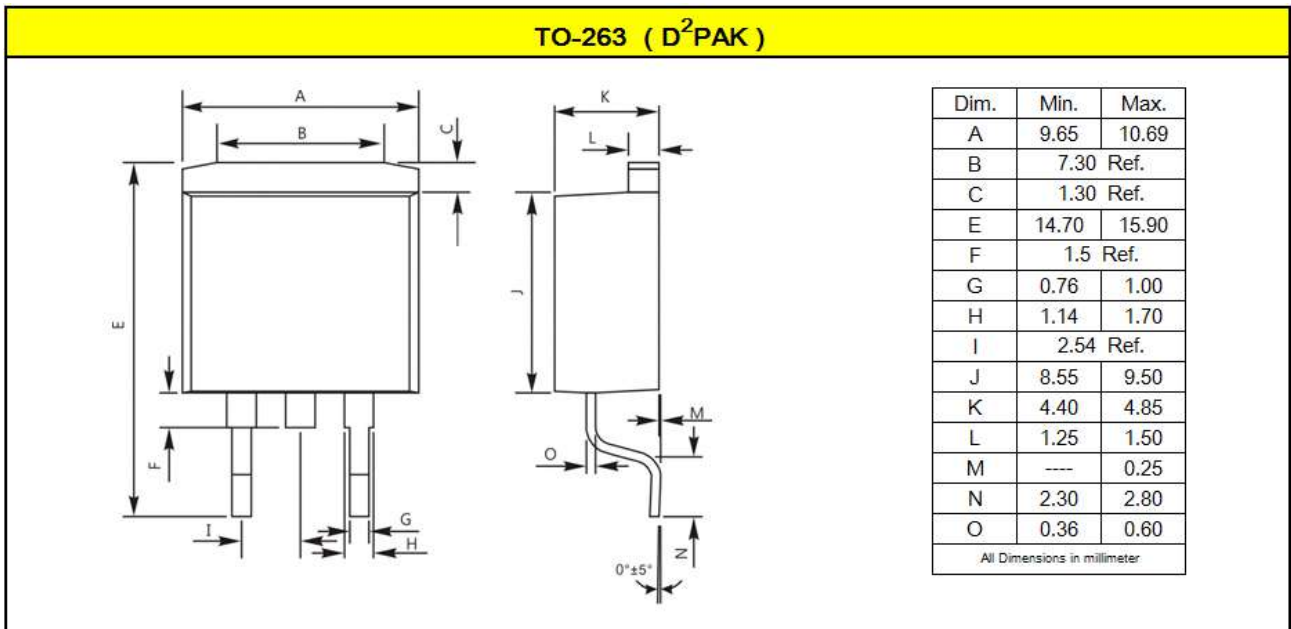
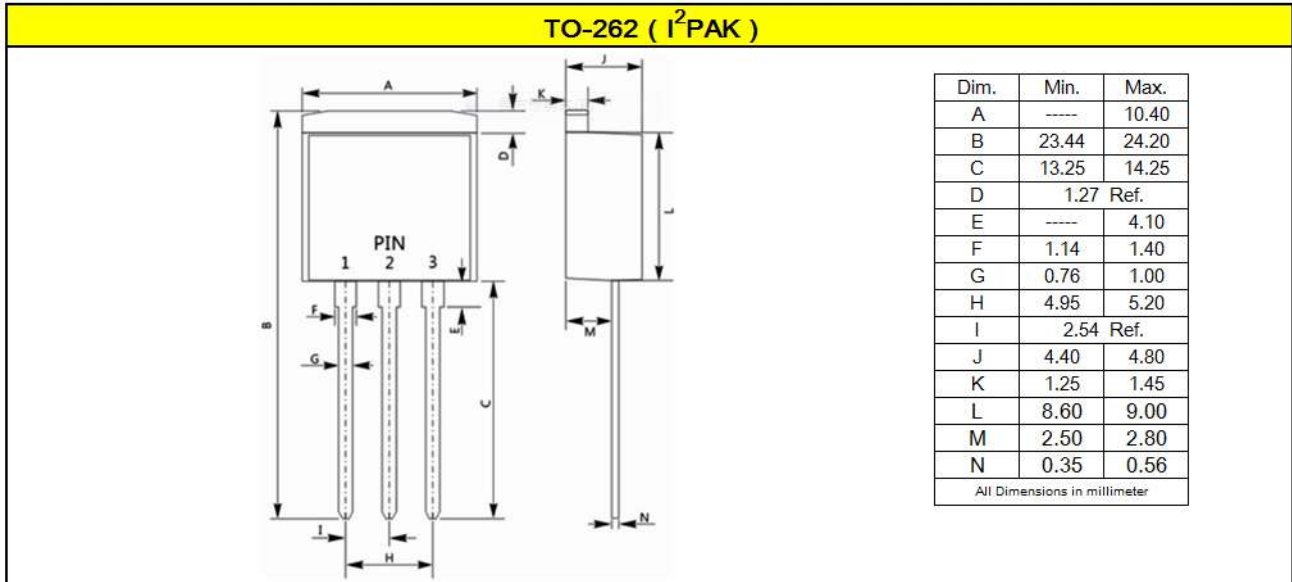
ITO-220AB



Dim.	Min.	Max.
A	-----	10.50
B	2.60	3.00
C	6.70	7.10
D	2.90	3.50
E	13.10	13.90
F	-----	4.00
G	1.11	1.45
H	0.40	0.80
I	2.40	2.80
J	5.00	5.40
K	4.30	4.70
L	2.90	3.30
M	8.20	9.00
N	2.50	2.90
O	0.40	0.80

All Dimensions in millimeter

Package Outline Dimensions millimeters



Ordering information

Part Number	Package	Delivery mode
KSR1060CT	TO-220AB	50 pieces / tube
KSRF1060CT	ITO-220AB	50 pieces / tube
KSRB1060CT	TO-262	50 pieces / tube
KSRD1060CT	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.