

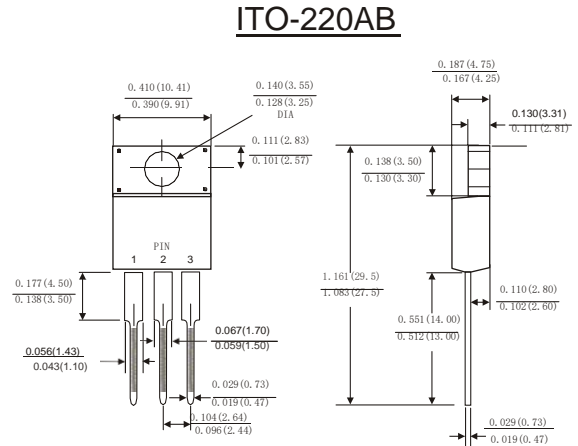
# SCHOTTKY BARRIER RECTIFIER

## Features:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
  - Metal silicon junction ,majority carrier conduction
  - Guard ring for overvoltage protection
  - Low power loss ,high efficiency
  - High current capability ,Low forward voltage drop
  - Single rectifier construction
  - High surge capability
- For use in low voltage ,high frequency inverters,
- free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds,
- 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

## Mechanical Data:

- *Case:* JEDEC ITO-220AB molded plastic body
- *Terminals:* Lead solderable per MIL-STD-750,method 2026
- *Polarity:* As marked
- *Mounting Position:* Any
- *Weight:* 0.08ounce, 2.24 gram



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	KSRF 4030CT	KSRF 4035CT	KSRF 4040CT	KSRF 4045CT	KSRF 4050CT	KSRF 4060CT	KSRF 40100CT	KSRF 40150CT	KSRF 40200CT	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	30	35	40	45	50	60	100	150	200	Volts	
Maximum RMS voltage	$V_{RMS}$	21	25	28	32	35	42	70	105	140	Volts	
Maximum DC blocking voltage	$V_{DC}$	30	35	40	45	50	60	100	150	200	Volts	
Maximum average forward rectified current(see Fig.1)	$I_{(AV)}$	Per leg									20.0	Amps
		Total device									40.0	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	300.0									Amps	
Maximum instantaneous forward voltage at 40.0 A	$V_F$	0.60			0.75		0.80	0.95			Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	$T_c=25^\circ\text{C}$									0.2	mA
		30			30							
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3.0									°C/W	
Operating junction temperature range	$T_J$	-65 to +150									°C	
Storage temperature range	$T_{STG}$	-65 to +150									°C	

- Notes:** 1.Pulse test: 300  $\mu$  s pulse width,1% duty cycle  
 2.Thermal resistance from junction to case

## RATINGS AND CHARACTERISTIC CURVES KSRF4030CT THRU KSRF40200CT

FIG.1-FORWARD CURRENT DERATING CURVE

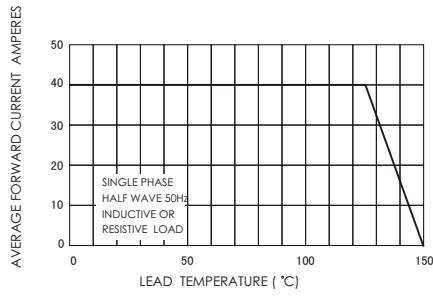


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

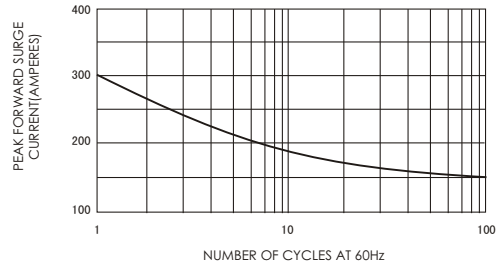


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

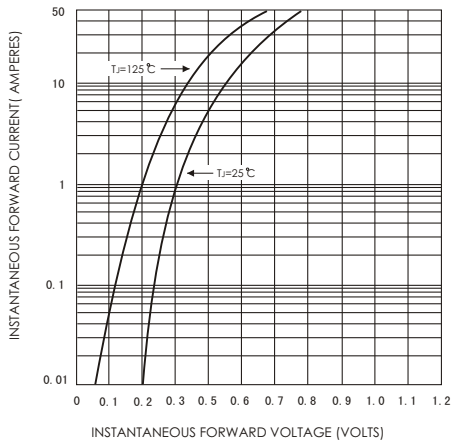


FIG.4-TYPICAL REVERSE CHARACTERISTICS

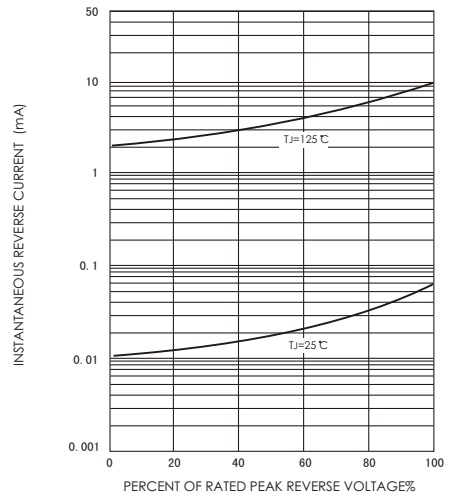


FIG.5-TYPICAL JUNCTION CAPACITANCE

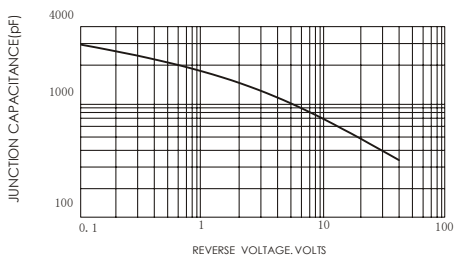


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

