

10A/45V Low VF Schottky Rectifier

FEATURES

- High current capability, low forward voltage
- Excellent high temperature stability
- Low power loss, and high efficiency
- High forward surge capability
- RoHS compliant, and Halogen free

MACHANICAL DATA

- Case: TO-277 small outline plastic package
- Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- Molding Compound Flammability Rating:UL94-0
- High temperature soldering guaranteed:260°C /10second
- Packed with FRP substrate and epoxy underfilled

APPLICATIONS

- Switching mode power supply applications
- Portable equipment battery applications
- High frequency rectification
- DC/DC converter
- Designed as bypass diodes for solar panels

ORDERING INFORMATION

- Device: K SD1045SL
- Package: TO-277
- Marking: 1045
- Material: Halogen free
- Packing: Tape & 13'' Reel
- Quantity per reel: 3,000pcs or 5,000pcs

ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage	45	V
$I_{F(AV)}$	Average Forward Current	10	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave	250	A
T_J & T_{STG}	Junction and Storage Temperature	-40~+150	°C



PACKAGE OUTLINE



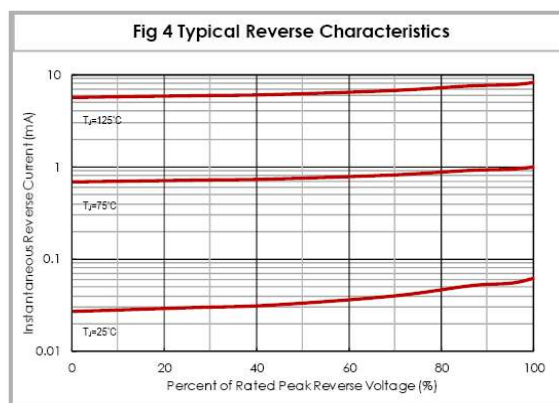
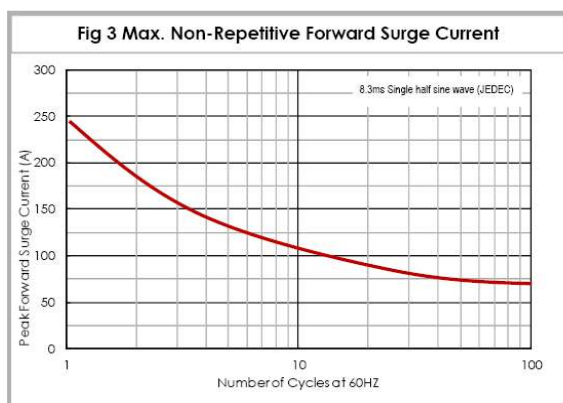
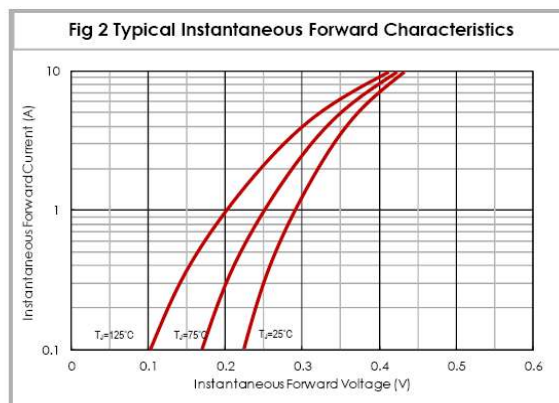
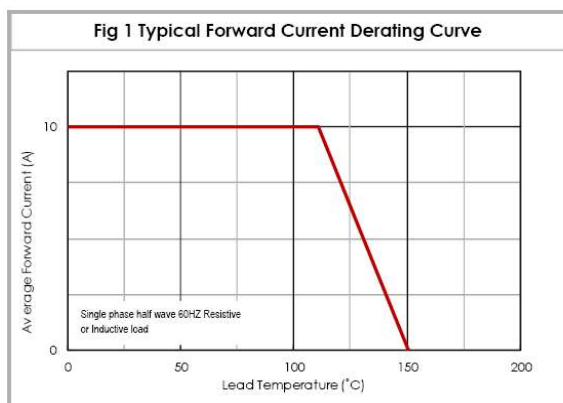
PIN CONFIGURATION

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C, unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _F	Forward Voltage	I _F = 3A @ 25°C		0.34		V
		I _F = 5A @ 25°C		0.38	0.42	V
		I _F = 10A @ 25°C		0.43	0.47	V
		I _F = 3A @ 125°C		0.27		V
		I _F = 5A @ 125°C		0.32		V
		I _F = 10A @ 125°C		0.41	0.42	V
I _R	Reverse Leakage Current	V _R = 45V @ 25°C			0.2	mA
		V _R = 45V @ 125°C		8.5	10	mA
C _J	Junction Capacitance	f=1MHz, V _R =4V		600		pF
R _{th(JA)}	Thermal Resistance (note 1)			31		°C/W

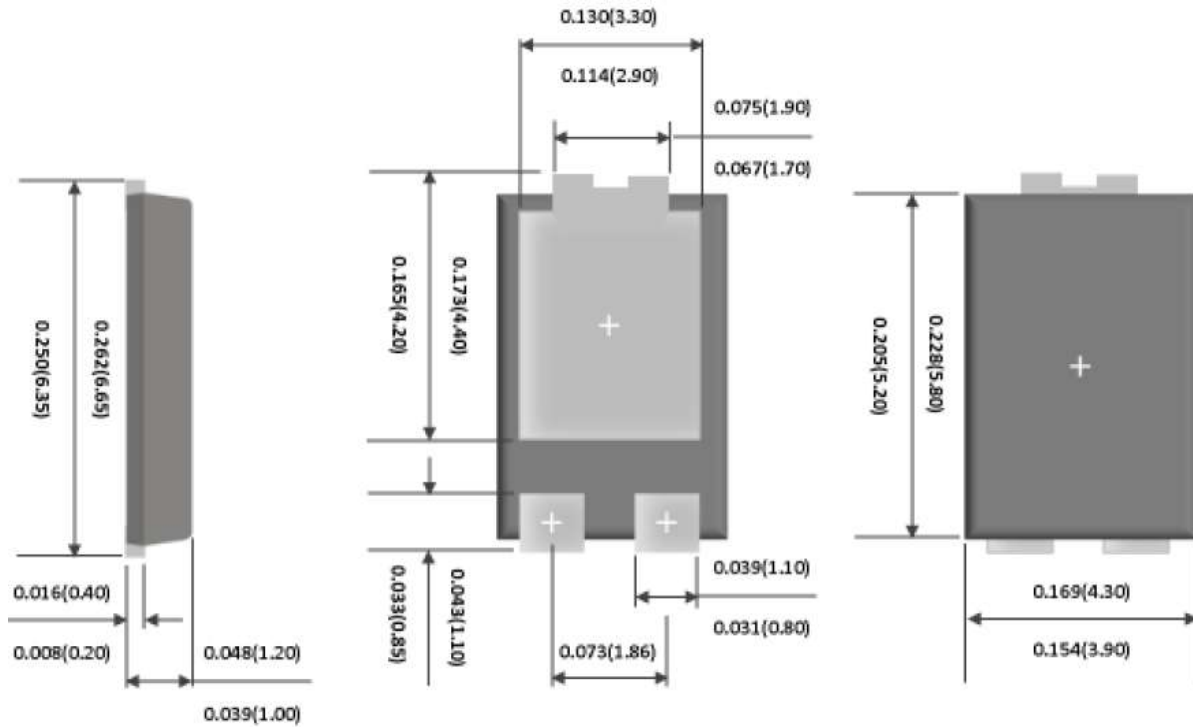
Note 1: Polymide PCB, 2oz. copper. Cathode pad dimensions 18.8x14.4mm. Anode pad dimensions 5.6x14.4mm

ELECTRICAL CHARACTERISTICS CURVE



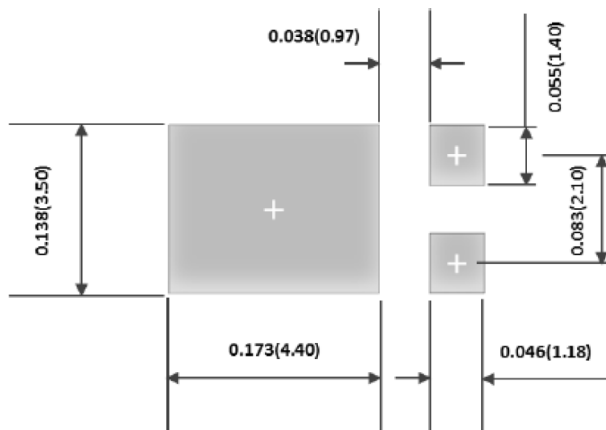
TO-277 PACKAGE OUTLINE DIMENSIONS

unit: mm



FOOT PRINT RECOMMENDATION

MARKING CODE



1045	YYYY	XXX
Device name	Trace code	Date code
		XXXX XX=month(01,02,03,04...11,12) X=year(2=2012,3=2013,4=2014...)