

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

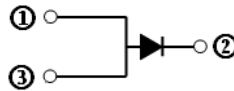
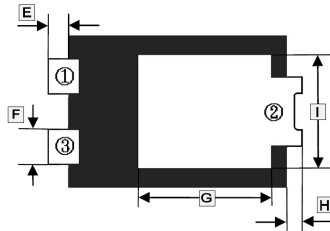
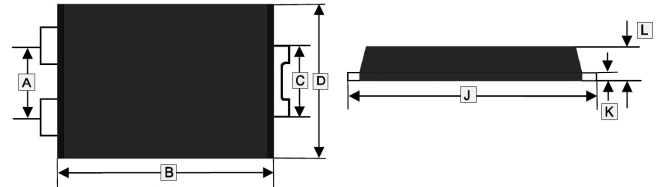
## FEATURES

- Trench Barrier Schottky Technology
- High Thermal Reliability
- High Forward Surge Capability
- Ultra Low Power Loss and High Efficiency
- Excellent High Temperature Stability
- Plastic Material-UL Flammability 94V-0

## PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-277D	5K	13 inch

### TO-277D



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.65	1.95	G	3.25	3.85
B	5.3	5.5	H	0.45	0.65
C	1.7	1.9	I	2.9	3.2
D	3.8	4.2	J	6.4	6.6
E	0.45	0.65	K	0.3	0.45
F	0.8	1.0	L	1.0	1.2

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(T<sub>A</sub>=25°C, unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Rating	Unit
Maximum Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	V
Maximum Working Peak Reverse Voltage	V <sub>RWM</sub>	100	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	V
Maximum Average Forward Rectified Current	I <sub>F</sub>	10	A
Non-Repetitive Peak Forward Surge Current@ 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	200	A
I <sup>2</sup> t Rating for Fusing@ t<8.3ms	I <sup>2</sup> t	166	A <sup>2</sup> S
Typical Thermal Resistance from Junction to Case <sup>1</sup>	R <sub>θJC</sub>	7	°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

## ELECTRICAL CHARACTERISTICS

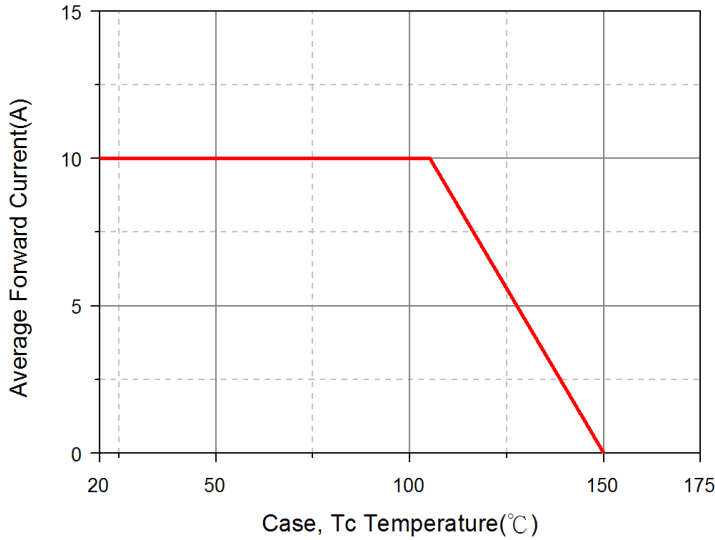
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.38	-	V	I <sub>F</sub> =1A, T <sub>J</sub> =25°C
		0.5	-		I <sub>F</sub> =5A, T <sub>J</sub> =25°C
		0.61	0.64		I <sub>F</sub> =10A, T <sub>J</sub> =25°C
		0.57	-		I <sub>F</sub> =10A, T <sub>J</sub> =125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>2</sup>	I <sub>R</sub>	-	0.3	mA	T <sub>J</sub> =25°C
		-	15		T <sub>J</sub> =100°C
Typical Junction Capacitance <sup>3</sup>	C <sub>J</sub>	630	-	pF	

Notes:

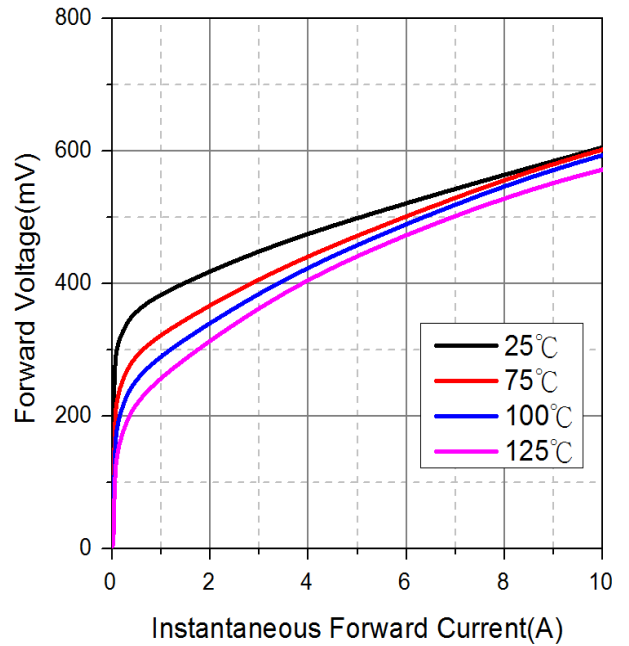
- FR4 Board Heat sink size: 10\*10\*0.2mm.
- Pulse Test : Pulse Width=300 μs, Duty Cycle ≤ 2.0%.
- Measured at 1MHz and applied reverse voltage of 5.0V D.C.

**CHARACTERISTIC CURVES**

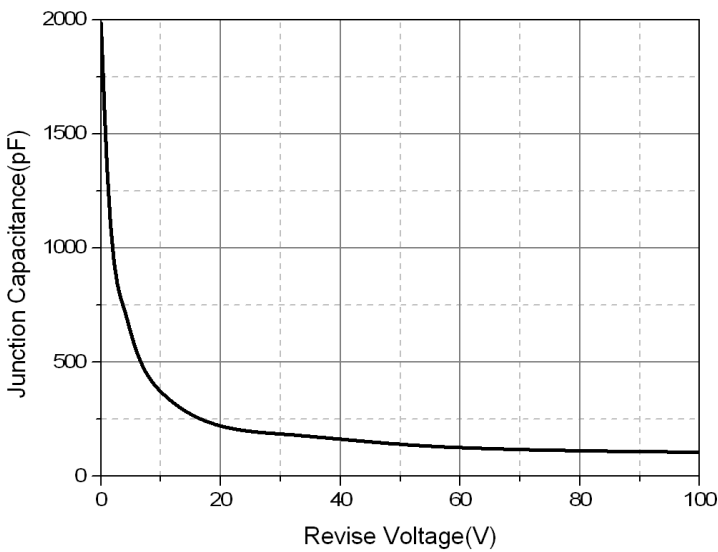
Typical Forward Current Derating Curve



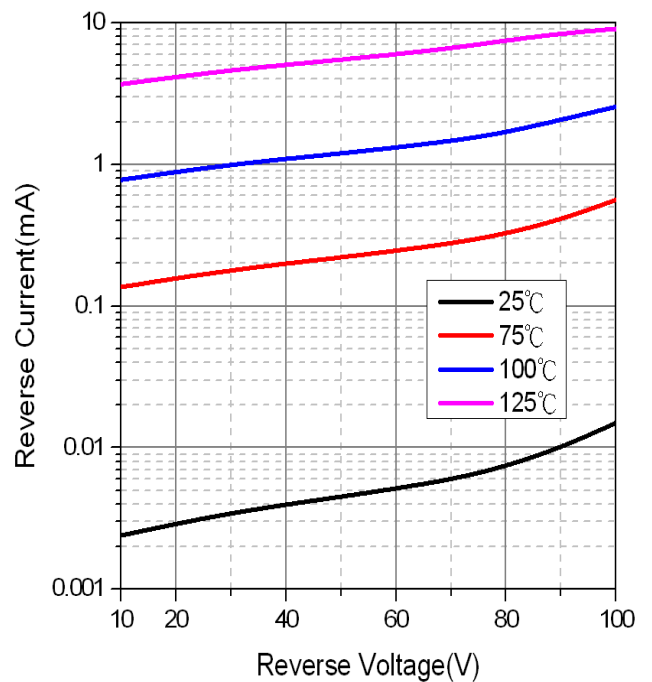
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

