

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

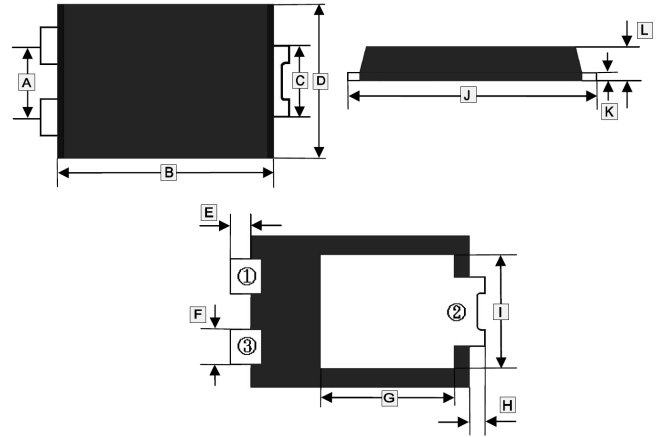
## FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction
- High operating temperature

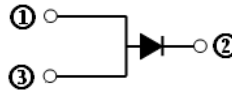
## PACKAGE INFORMATION

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

(Rating 25°C ambient temperature 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 Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	200	V
Working Peak Reverse Voltage	V <sub>RSM</sub>	200	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	V
Maximum Average Forward Rectified Current	I <sub>F</sub>	5	A
Peak Forward Surge Current, 8.3 ms single half sine-wave	I <sub>FSM</sub>	110	A
Voltage Rate of Change (Rated V <sub>R</sub> )	dv/dt	10000	V / μs
Typical Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	80	°C / W
Typical Thermal Resistance from Junction to Lead	R <sub>θJL</sub>	15	°C / W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~175	°C

## ELECTRICAL CHARACTERISTICS

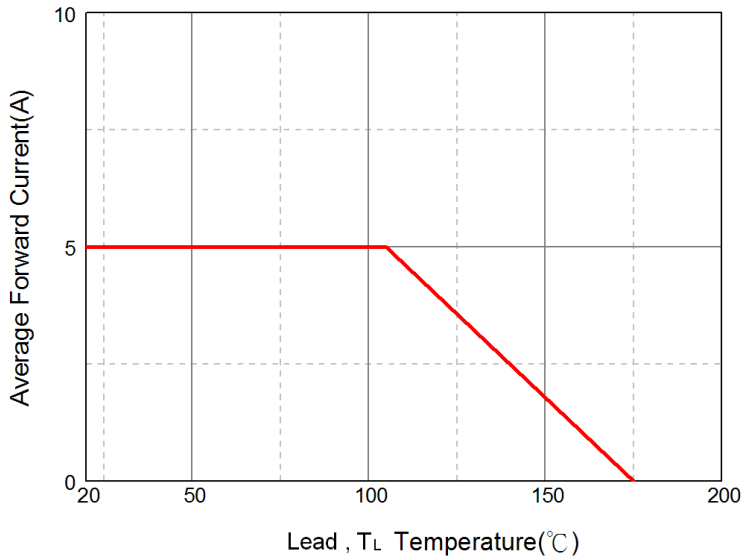
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Instantaneous Forward Voltage	V <sub>F</sub>	0.82	0.87	V	I <sub>F</sub> =5A, T <sub>J</sub> =25°C
		0.67	-		I <sub>F</sub> =5A, T <sub>J</sub> =125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>2</sup>	I <sub>R</sub>	0.5	50	μA	T <sub>J</sub> =25°C
		50	700		T <sub>J</sub> =125°C
Typical Junction Capacitance <sup>1</sup>	C <sub>J</sub>	68	-	pF	

Notes:

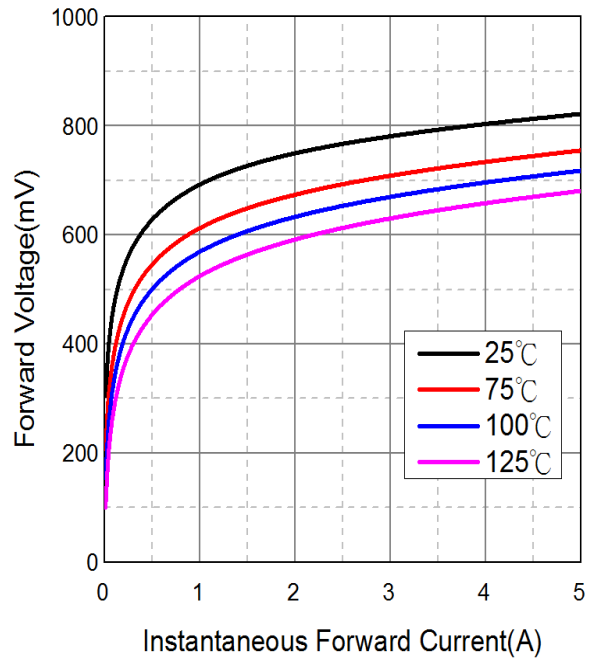
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test : Pulse Width = 300 μs, Duty Cycle ≤ 2.0%.

**RATINGS AND CHARACTERISTIC CURVES**

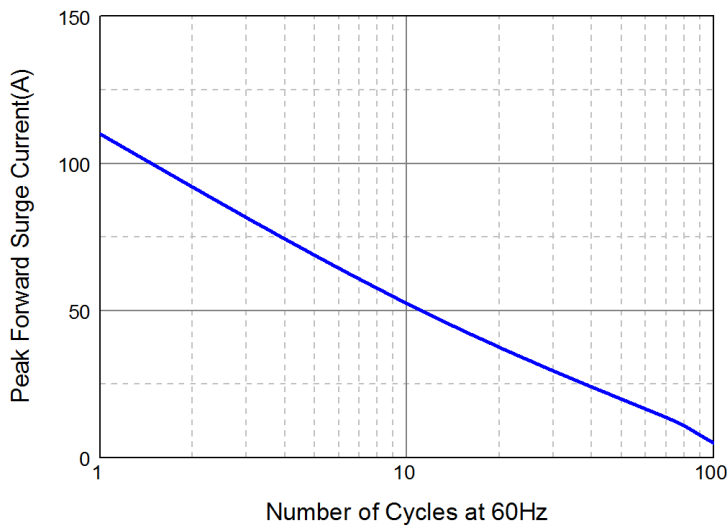
Typical Forward Current Derating Curve



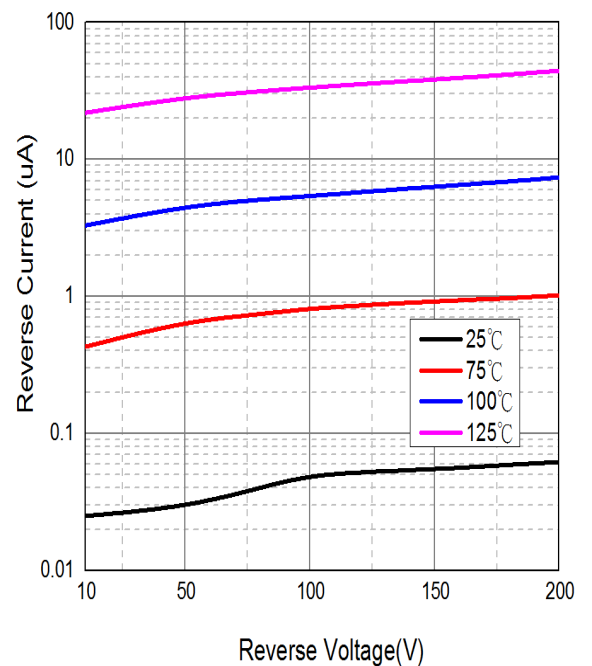
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

