/ Descriptions

TO-3P
Ultrafast Recovery Diode in a TO-3P Plastic Package.

/ Features

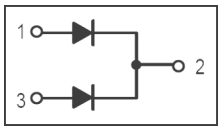
TO-3P 600V

Ultrafast recovery time,popular TO-3P package,low forward voltage,low leakage current,reverse voltage to 600V.

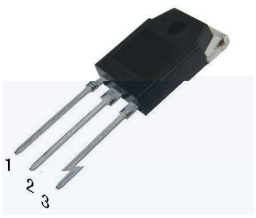
/ Applications

These devices are intended for output rectifiers and flywheel diodes in a variety of high-frequency pulse-width modulated switching regulators. Their low stored charge and attendant fast reverse-recovery behavior minimize electrical noise generation and in many circuits markedly reduce the turn-on dissipation of associated power switching transistors.

/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Average Forward Current(Per diode)	$I_{F(AV)}$	15	A
Average Forward Current(Per device)		30	A
Forward RMS Current	$I_{F(RMS)}$	30	A
Surge non repetitive forward current(t_p=10ms sinusoidal)	I_{FSM}	140	A
Typical Thermal Resistance Junction to Case	R_{Jc}	0.85	/W
Coupling	$R_{th(c)}$	0.2	/W
Operating Junction Temperature Range	T_j	175	
Storage Temperature Range	T_{stg}	-65 +175	

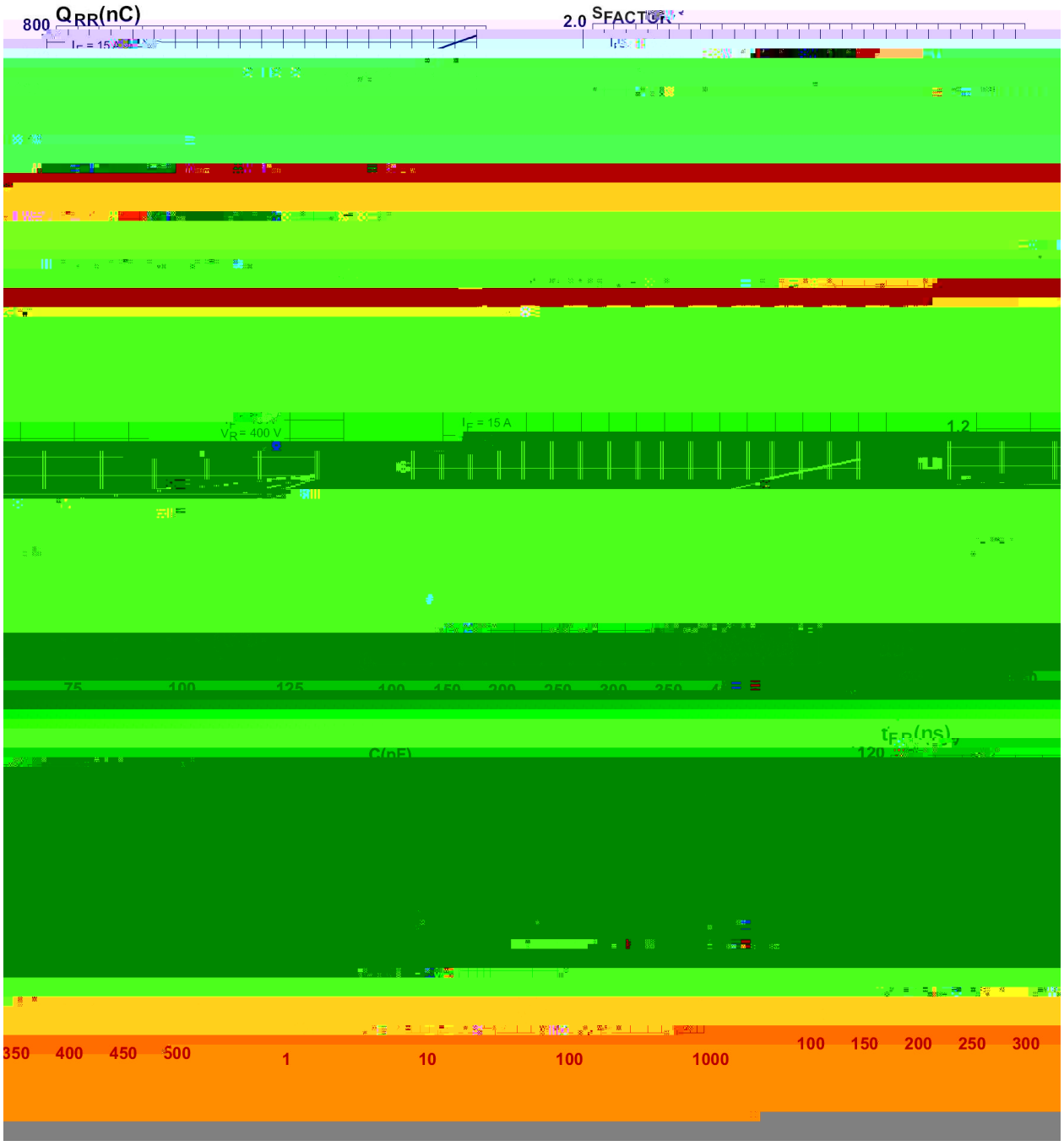
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage(2)	V_F	I_F=15A T_C=25			1.95	V
		I_F=15A T_C=150		1.15	1.45	
		I_F=30A T_C=25			2.25	
		I_F=30A T_C=150		1.42	1.80	
Instantaneous Reverse Current(1)	I_R	V_R=600V T_a=25			10	A
		V_R=600V T_a=150		40	400	
Reverse recovery current	I_{RM}	I_F =15A V_R=400V dI_F/dt=100A/ s T_j=125		4.0	5.5	A
Reverse Recovery Time	t_{rr}	I_F=0.5A I_R=1.0A I_{RR}=0.25A		35		ns
		I_F=1.0A V_R=30V dI_F/dt = 50A/μs		45		
Forward recovery time	t_{fr}	I_F=15A V_{FR}=1.9V dI_F/dt =100 A/ s T_j=25 °C			100	ns
Forward recovery voltage	V_{FP}			2.5		V

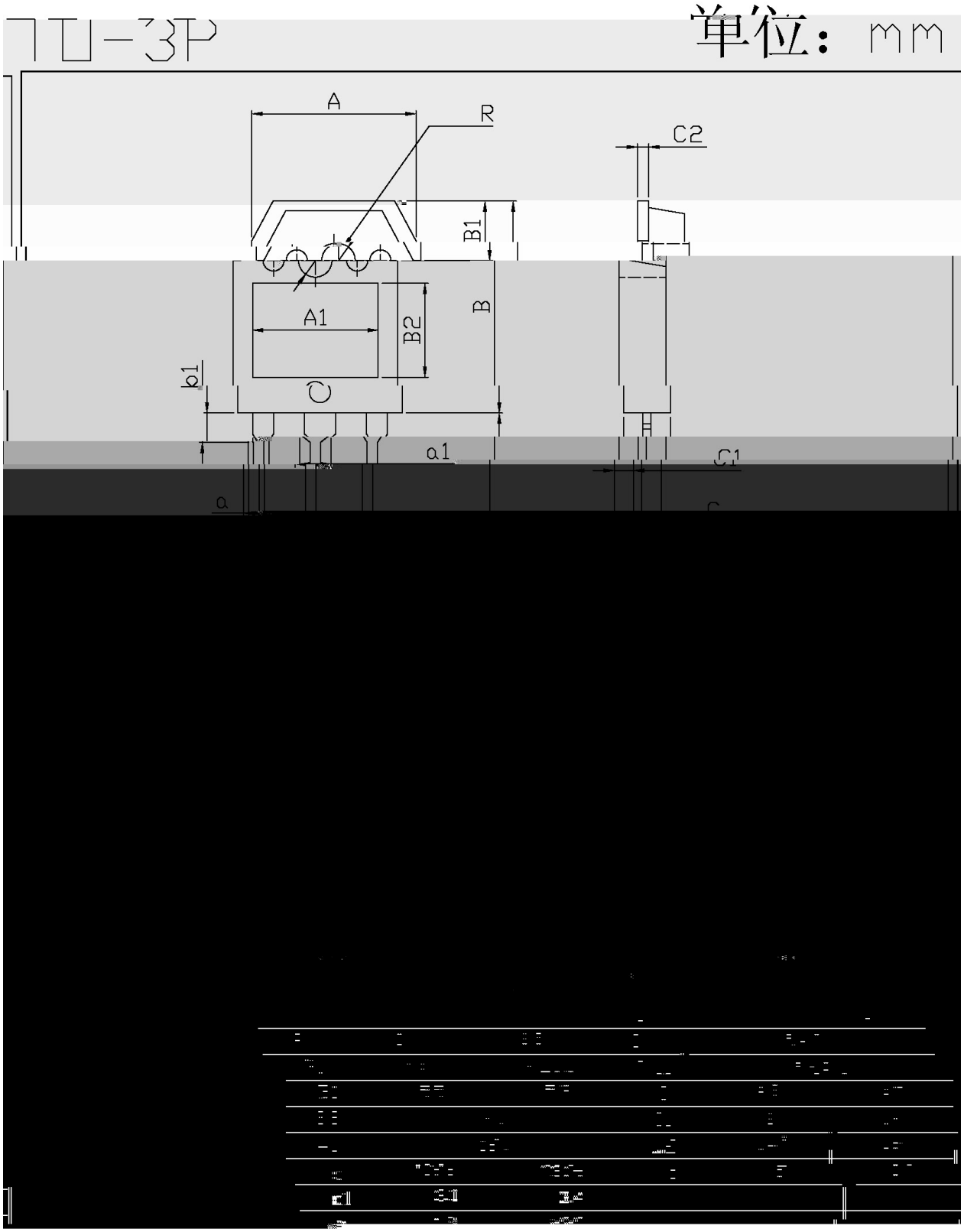
/Notes

1. Pulse test: t_p = 5 ms, § < 2%
2. Pulse test: t_p = 380 s, § < 2%

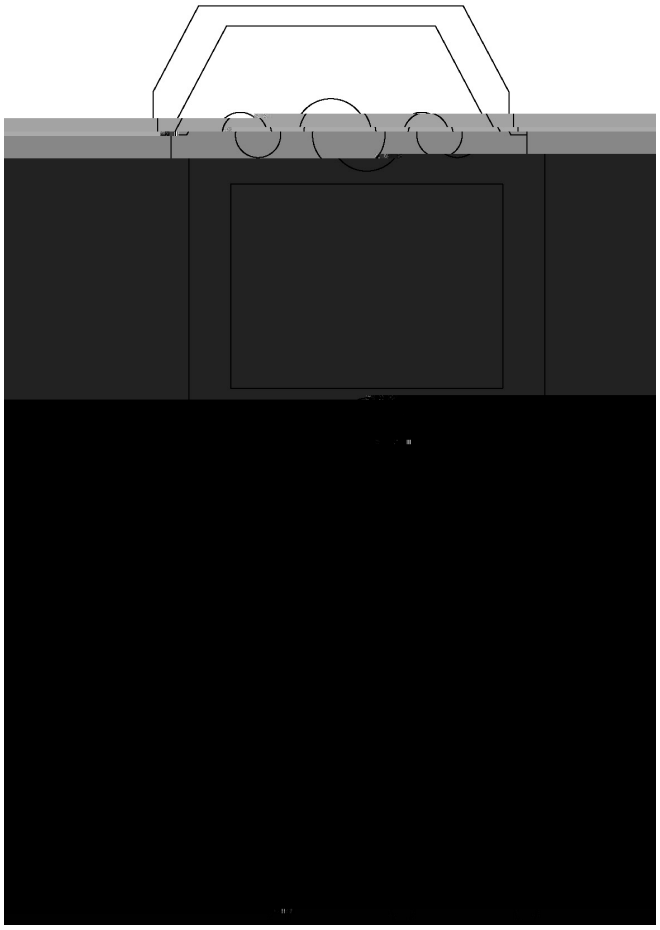
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

MUR3060PT

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Note:

BR:	Company Code
MUR3060PT	Product Type.
****:	

( ) / Temperature Profile for Dip Soldering(Pb-Free)



					Note:
1	25	150		60 90sec;	1.Preheating:25~150 , Time:60~90sec.
2	255±5			5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3			2 10	/sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270±5	10±1 sec.	Temp.:270±5	Time:10±1 sec

/ Packaging SPEC.

/ TUBE

Package Type	Units	Dimension	(unit mm