

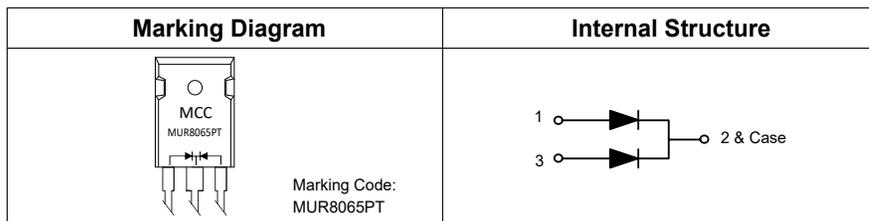
Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Low Switching Losses and High Efficiency
- Ultrafast and Ultrasoft Recovery
- Near Zero Temperature Coefficient
- Planar Structure Die

Maximum Ratings @ 25°C (Unless Otherwise Specified)

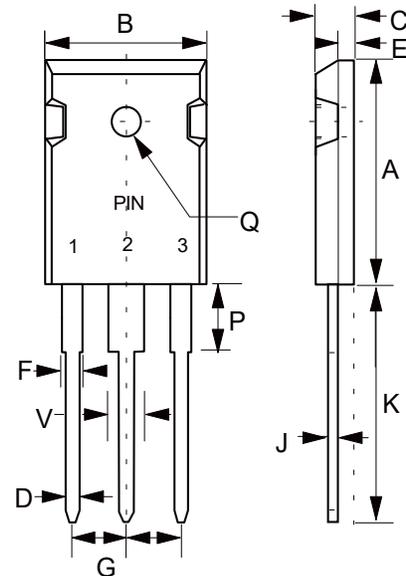
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	650	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	V_{RMS}	455	V
Average Rectified Forward Current	$I_{F(AV)}$	40	A
Per Diode Per Device		80	
Non-Repetitive Peak Surge Current (Per Diode) @8.3ms Half Sine Wave	I_{FSM}	400	A
Current Squared Time (Per Diode) @ 1ms≤t≤8.3ms	I^2t	664	A ² s

**80 Amp
Ultrafast Recovery
Rectifier
650 Volts**



Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

TO-247



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.787	0.866	20.00	22.00	
B	0.598	0.638	15.20	16.20	
C	0.185	0.208	4.70	5.30	
D	0.035	0.059	0.90	1.50	
E	0.059	0.094	1.50	2.40	
F	0.067	0.091	1.70	2.30	
J	0.019	0.031	0.48	0.80	
K	0.748	0.833	19.00	21.15	
P	0.122	0.189	3.10	4.80	
Q	0.118	0.150	3.00	3.80	φ
V	0.106	0.134	2.70	3.40	
G	0.197	0.224	5.00	5.70	

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		175	°C
T_{stg}	Storage Temperature Range		-55		175	°C
$R_{th(J-C)}$	Thermal Resistance from Junction to Case			0.5		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient			35		°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=40A; T_J=25^\circ C$		1.50	1.80	V
		$I_F=40A; T_J=125^\circ C$		1.20		
Reverse Current	I_R	$V_R=650V; T_J=25^\circ C$			10	μA
		$V_R=650V; T_J=125^\circ C$			200	
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		190		pF

Dynamic Recovery Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Reverse Recovery Time	t_{rr}	$I_F=0.5A; I_R=1.0A; I_{RR}=0.25A; T_J=25^\circ C$		38	50	ns	
		$I_F=40A; di_F/dt=-200A/\mu s; V_R=400V; T_J=25^\circ C$		56			
		$I_F=40A; di_F/dt=-1000A/\mu s; V_R=400V$	$T_J=25^\circ C$		47		
			$T_J=125^\circ C$		97		
Peak Recovery Current	I_{RRM}	$I_F=40A; di_F/dt=-1000A/\mu s; V_R=400V$	$T_J=25^\circ C$		7.5	A	
			$T_J=125^\circ C$		18.1		
Reverse Recovery Charge	Q_{rr}	$I_F=40A; di_F/dt=-1000A/\mu s; V_R=400V$	$T_J=25^\circ C$		178	nC	
			$T_J=125^\circ C$		881		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

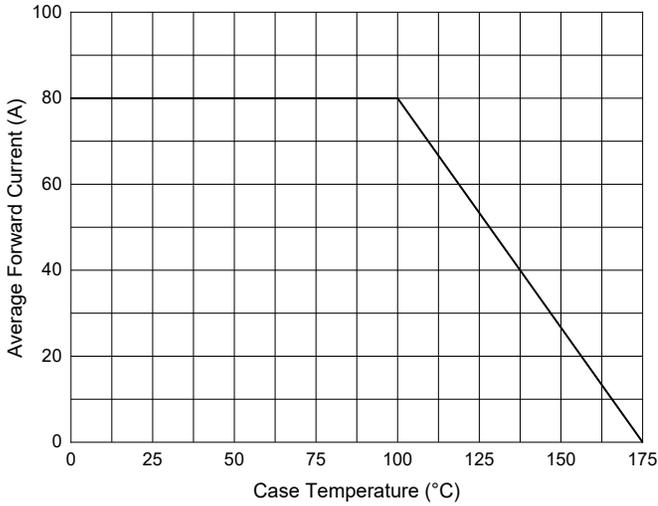


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

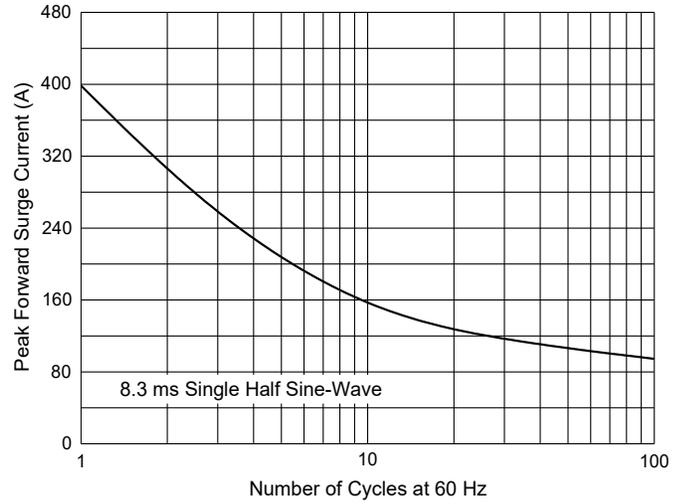


Fig. 3 - Typical Forward Characteristics

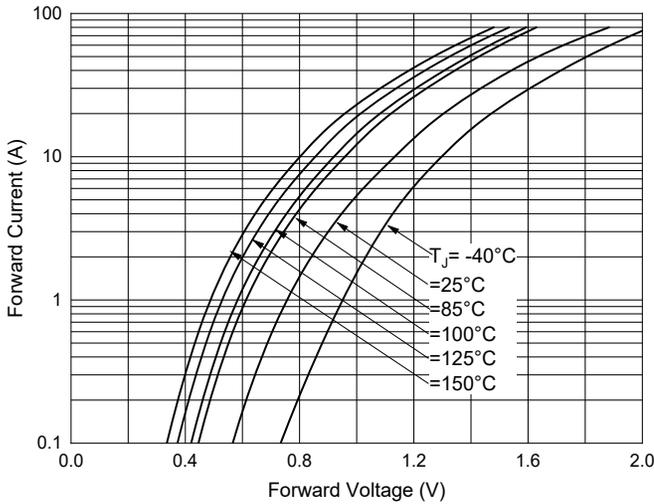


Fig. 4 - Typical Reverse Leakage Characteristics

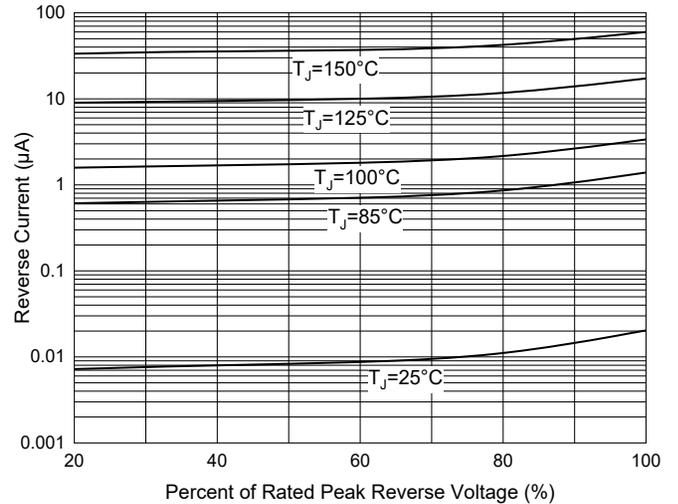


Fig. 5 - Typical Capacitance Characteristics

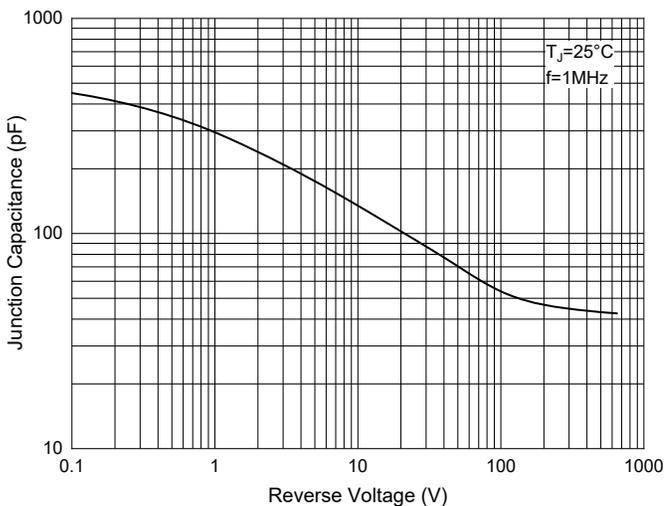
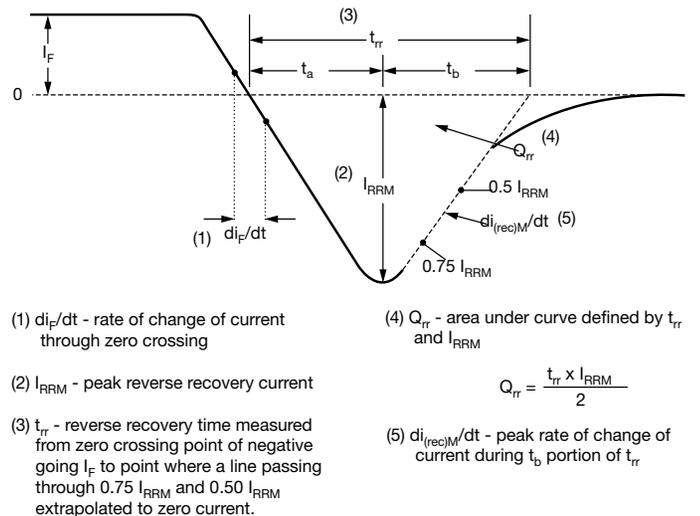


Fig. 6 - Reverse Recovery Waveform and Definitions



Ordering Information

Device	Packing
MUR8065PT-BP	Bulk:30pcs/Tube,360pcs/Box,1.8Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. MUR8065PT-BP-HF

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