

Silicon Super Fast Recovery Diode

$V_{RRM} = 50\text{ V} - 600\text{ V}$

$I_F = 300\text{ A}$

Features

- High Surge Capability
- Types up to 600 V V_{RRM}

Twin Tower Package



Maximum ratings, at $T_j = 25\text{ °C}$, unless otherwise specified ("R" devices have leads reversed)

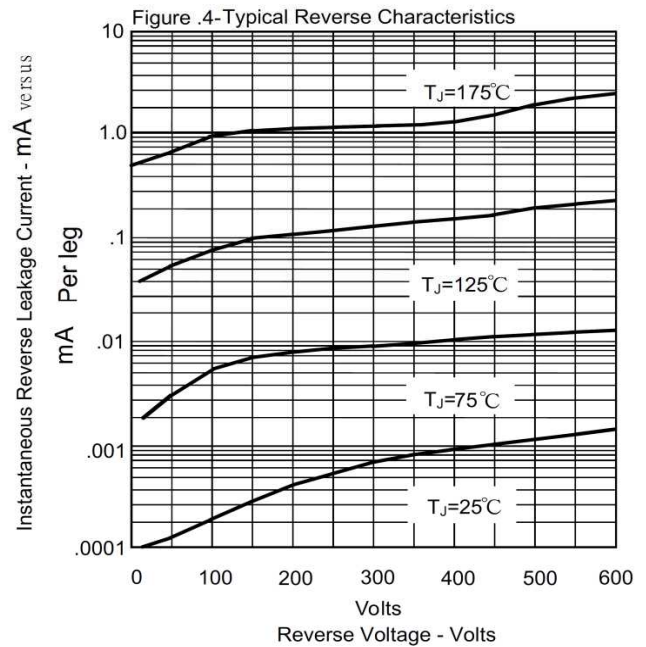
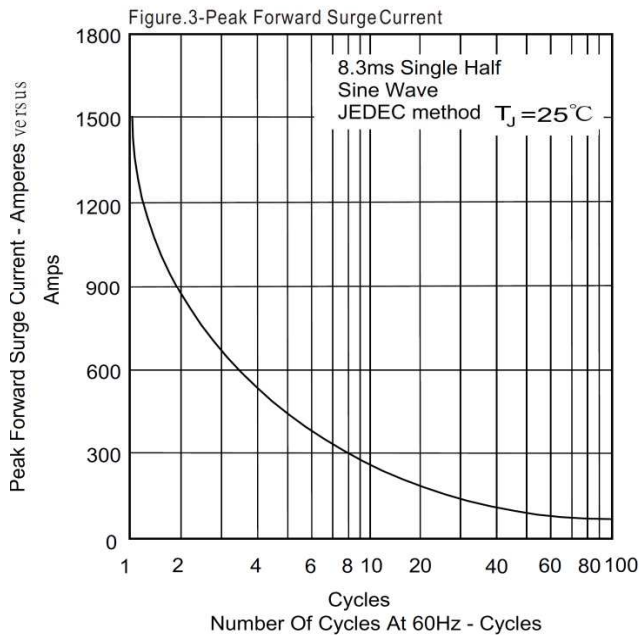
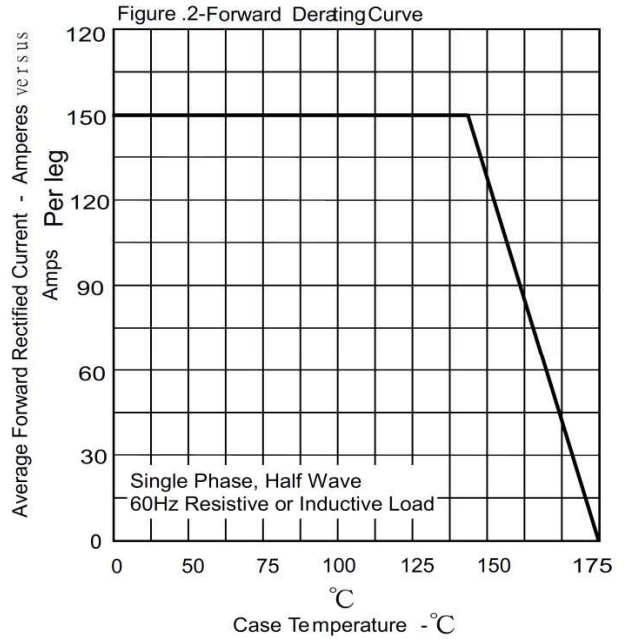
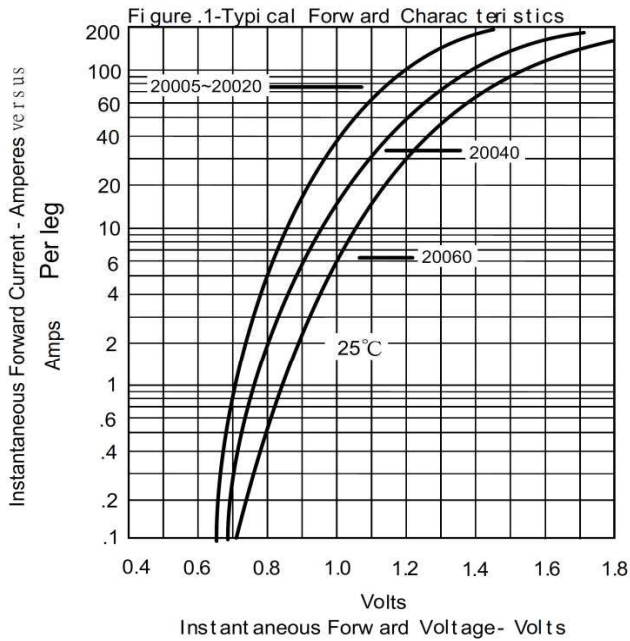
Parameter	Symbol	Conditions	MUR30005CT (R)	MUR30010CT (R)	MUR30020CT (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		50	100	200	V
RMS reverse voltage	V_{RMS}		35	70	140	V
DC blocking voltage	V_{DC}		50	100	200	V
Continuous forward current	I_F	$T_C \leq 140\text{ °C}$	300	300	300	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	1500	1500	1500	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	°C

Electrical characteristics, at $T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	MUR30005CT (R)	MUR30010CT (R)	MUR30020CT (R)	Unit
Diode forward voltage	V_F	$I_F = 100\text{ A}$, $T_j = 25\text{ °C}$	1.3	1.3	1.3	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$	25	25	25	μA
		$V_R = 50\text{ V}$, $T_j = 125\text{ °C}$	1	1	1	mA

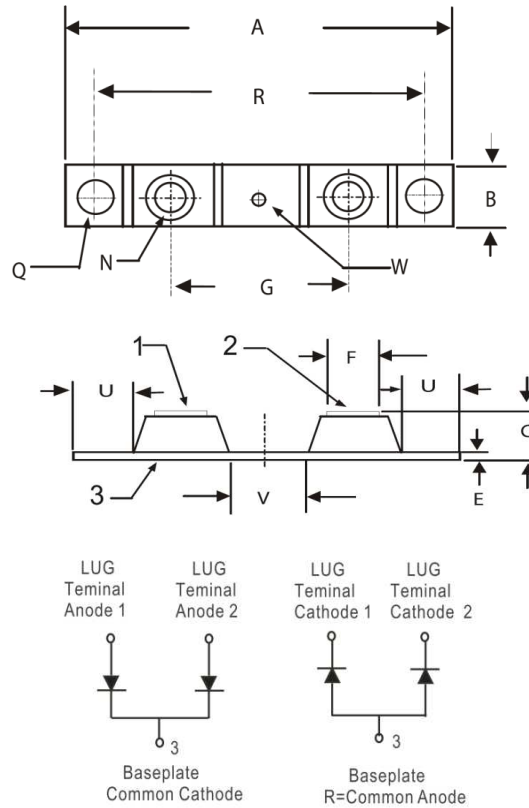
Recovery Time

Maximum reverse recovery time	T_{RR}	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$	90	90	90	nS
-------------------------------	----------	---	----	----	----	----



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	—	3.630	—	92.40
B	0.700	0.800	17.78	20.32
C	—	0.650	—	16.51
E	0.130	0.141	3.30	3.60
F	0.482	0.490	12.25	12.45
G	1.368	BSC	34.75	BSC
N	1/4-20 UNC FULL			
Q	0.275	0.290	6.99	7.37
R	3.150	BSC	80.01	BSC
U	0.600	—	15.24	—
V	0.312	0.370	7.92	9.40
W	0.180	0.195	4.57	4.95