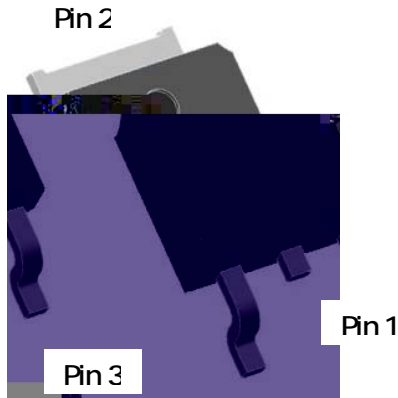


Schottky Diodes



Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Part no. with suffix "Q" means AEC-Q101 qualified

U (Ta=25As unless otherwise specified) **As marked Maximum Ratings**



PARAMETER	SYMBOL	UNIT	MBR1045CDQ
Device marking code	-	-	MBR1045CD
Repetitive peak reverse voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz -sine wave $T_C=120$	I_O	A	10
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25$	I_{FSM}	A	120
Current Squared Time @1ms t 8.3ms $T_J=25$	I^2t	A ² s	60
Storage Temperature	T_{stg}		-55 ~ +150
Junction Temperature	T_J		-55 ~ +150

Electrical Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Typ	Max	
Instantaneous forward voltage per diode	V_F	V	$I_F=5A$ $T_J=25$	0.51	0.58	
			$I_F=5A$ $T_J=125$	0.45	0.55	
Typical junction capacitance per diode	C_J	pF	$V_R=4V, f=1\text{ MHz}$	270	-	
Instantaneous reverse current per diode	I_R	mA	$V_R=45V$	$T_J=25$	-	0.1
				$T_J=125$	-	100

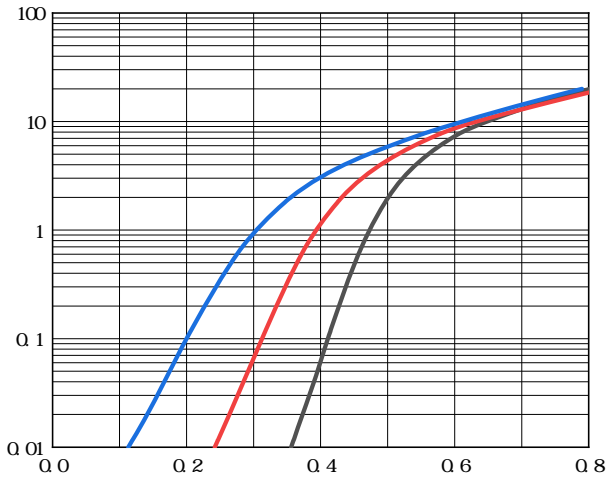
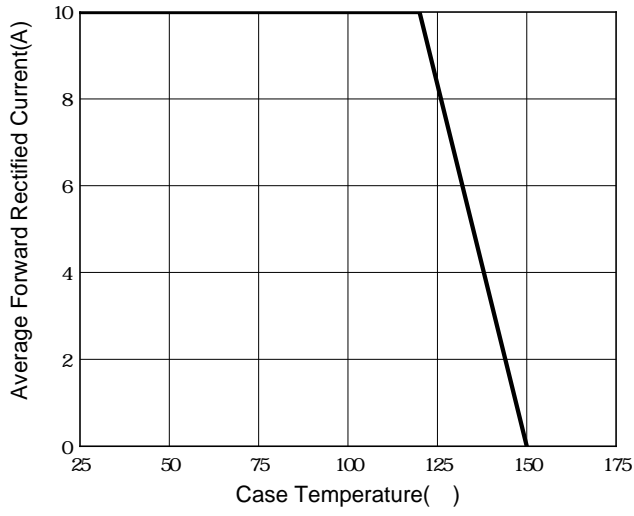
Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MBR1045CDQ
Typical thermal resistance per diode Between junction and case	R_{JC}	/W	5



Characteristics (Typical)

Fig.1:Forward Current Derating Curve





MBR1045CDQ

Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR1045CDQ	Approximate 0.32	2500	2500	25000	Reel

Out



MBR1045CDQ

Disclaimer

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