

**FEATURES**

Epitaxial planar die construction.

Ultra-small surface mount package.

Marking:MIJ

**MMBT2369 (NPN)**

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	4.5	V
Collector Current -Continuous	$I_C$	200	mA
Collector Power Dissipation	$P_C$	300	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C=10\mu A, I_E=0$	40		V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C=10mA, I_B=0$	15		V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E=10\mu A, I_C=0$	4.5		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$		0.4	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=1.0V, I_C=10mA$	40	120	
		$V_{CE}=2.0V, I_C=100mA$	20		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1.0mA$		0.25	V
Output capacitance	$C_{obo}$	$V_{CE}=5.0V, I_E=0, f=1.0MH$		4.0	pF
Small signal current gain	$h_{fe}$	$I_C=10mA, V_{CE}=1$	5.0		
Storage Time	$t_s$	$I_{B1}=I_{B2}=I_C=10mA$		13	ns
Turn-on time	$t_{on}$	$V_{CC}=3V, I_C=10mA,$		12	ns
Turn-off time	$t_{off}$	$V_{CC}=3V, I_C=10mA,$		18	ns